REPORT OF
OFF-SITE SOIL VAPOR ASSESSMENT
FORMER AL PHILLIPS FACILITY
MARYLAND SQUARE SHOPPING CENTER
3661 MARYLAND PARKWAY
LAS VEGAS, NEVADA

FOR AL PHILLIPS THE CLEANER

URS CORPORATION
JOB NO. 26698724.00005
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URS

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1 INTRODUCTION

URS Corporation (URS) has prepared this Soil Vapor Assessment report at the request of Al Phillips the Cleaner, Inc. (Al Phillips) in response to direction from the Nevada Division of Environmental Protection (NDEP). This assessment was conducted to evaluate the distribution of tetrachloroethylene (PCE) vapors in soil beneath the eastern portion of the parking lot of The Boulevard Mall and the western end of Ottawa Drive, and beneath Spencer Street on the east. The project background, scope of work, procedures, and results are presented in the following sections.

1.1 SITE LOCATION

The former Al Phillips facility is located in the Maryland Square Shopping Center at 3661 South Maryland Parkway, Las Vegas, Nevada (Figure 1). The Soil Vapor Assessment study area is located between the eastern parking lot of The Boulevard Mall, west of Algonquin Drive, and Spencer Street on the east (Figure 1).

1.2 SITE HISTORY AND INFORMATION

Based on Clark Count Assessor records and aerial photos, the site of Maryland Square Shopping Center, The Boulevard Mall, and the residential property east of the Mall were native, desert land until the 1960s when the properties were developed. Development of Maryland Square Shopping Center began in 1968 with the final building construction complete in 1970. Wonder World South Cleaners was located within the Maryland Square Shopping Center at 3651 Maryland Square Parkway from 1970 until the 1980s (Mullin-Kille, 1970; Luskey 1982). This building was located west of the former Al Phillips site and was demolished and a Clark County school was constructed on the location between 1999 and 2003. The former Al Phillips site was located within the same shopping center at 3659 and 3661 Maryland Square Parkway from 1969 to some time in 2000. One dry cleaning unit was operated at the former Al Phillips site during that time. The current property owner, Maryland Square LLC, demolished the former Al Philips building and other adjoining suites including the concrete floor and foundations during July and August of 2006. On March 14, 2007, Maryland Square LLC confirmed via email from Franklin F. Levy, Esq. that there were no current plans to begin construction at site. Currently the site is covered by asphalt except for the location of the former buildings. The site is currently fenced. The elevation of the site is approximately 1,993 feet above mean sea level.

Development of residential properties in the soil vapor study area east of the Al Philips site began in 1962 with most homes constructed by 1964. The final homes in the north-west region of the residential area were constructed in 1972. In 1964, the parcel of land for The Boulevard Mall was graded for construction with the structure and parking lots completed in 1968.

Based on a subsurface investigations in June 2005 (URS, 2005) and January 2007 (URS, 2007), the stratigraphy beneath the former Al Philips facility consists of a 1.5-foot to 2-foot layer of fine sand, then a 1.5-foot to 2-foot layer of hard fine sandy silt, then a 6.5-foot to 8.5-foot layer of firm to hard caliche, overlaying a 3.5-foot to 4.5-foot layer of fine sandy silt just above groundwater. A layer of sand was encountered at the bottom of a couple boreholes just above groundwater. Groundwater

beneath the former Al Phillips facility is approximately 17 feet bgs. The only significant potential migration pathway for PCE to leave the Al Phillips site is via groundwater that flows eastward across Maryland Parkway.

1.3 PRIOR INVESTIGATIONS

During 2005, Al Phillips performed a soil investigation at the former Al Phillips dry cleaning facility located on the west side of Maryland Parkway (URS, 2005). During 2005 and 2006, eight groundwater-monitoring wells were installed in the residential area, which is the study area for this assessment. Al Phillips has performed quarterly groundwater monitoring within the study area for the last two years. Groundwater monitoring results have shown that the dissolved PCE groundwater plume beneath the study area is approximately 400 feet to 450 feet wide, is generally centered (east-west) along Seneca Lane, and extends both east and west of the study area for this assessment. The concentration of dissolved PCE in groundwater collected from the study area has ranged from 350 micrograms per liter (µg/L) to 2,500 µg/L. In general, the concentration of dissolved PCE is higher on the west side of the study area and decreases toward the east. Figure 3 is an aerial photo of the soil vapor study area that shows the locations of the groundwater monitoring wells and the concentrations of PCE detected in them during the December 2006 groundwater sampling event. This figure also shows estimated PCE concentration contours for this section of the groundwater plume.

In January 2007, URS performed a source area assessment at the site of the former Al Phillips facility (URS, 2007) to further evaluate the vertical and lateral extent of PCE soil contamination. Calculated in-place cubic yardage (cyd) volumes for PCE-contaminated soil yielded revised estimates of approximately 5,088 cyd at NDEP's concentration to protect groundwater of 7 µg/kg; 1,832 cyd at the interim remedial goal of 100 µg/kg; 624 cyd at the EPA residential PRG of 480 µg/kg; and 204 cyd at the EPA industrial PRG of 1,300 µg/kg. Based on some soil parameter testing it is estimated that approximately 12 to 30 pounds of PCE remain in the vadose zone at the source area.

2 SITE SPECIFIC DATA

2.1 UTILITY LOCATION

Southern Nevada's "Call Before You Dig", which is maintained by Underground Service Alert, was contacted prior to drilling. Subsurface public utilities within the right-of-way were marked by the services prior to drilling. A utility overview is shown in Figure 2.

2.2 SITE GEOLOGY AND HYDROGEOLOGY

The site is located near the center of the Las Vegas Valley sedimentary basin. Based on installation of groundwater wells within the study area, the general stratigraphy within the study area includes hard fine sandy silts, fine sand, silty sands and gravels, and one or more layers of firm to hard caliche. Based on March 2007 groundwater measurements in shallow monitoring wells within the study area, the depth to groundwater beneath the study area varies based on the local topography and subsurface conditions and ranges from approximately 11 to 27 feet below ground surface (bgs). Specifically, the depth to groundwater in monitoring well MW-20 on the east side of The Boulevard Mall was approximately 26.8 feet bgs; at the dead end cul-de-sac of Ottawa Drive at Algonquin Drive depth to groundwater in well MW-18 was approximately 11.5 feet bgs.; at well MW-26 on Seneca Lane depth to groundwater was approximately 16feet bgs.; and at the cul-de-sac on Ottawa Circle just east of the study area depth to groundwater was approximately 12.7 feet bgs in well MW-27. Groundwater flow is toward the east at a general gradient of approximately 0.045 feet (vertical) per-foot (horizontal).

3 PURPOSE AND SCOPE OF WORK

3.1 PURPOSE

The purpose of the scope of work (SOW) of this Soil Vapor Assessment is to collect soil vapor samples in and near the residential area, analyze the samples for potential PCE concentrations, and provide the analytical results to NDEP, which will use the results to evaluate the potential risk of exposure for the public.

3.2 SCOPE OF WORK

The Soil Vapor Assessment SOW was accomplished by performing the following tasks:

- Drilling six boreholes along a north-south line on the east side of the east parking lot of The Boulevard Mall. These soil vapor borehole locations were drilled at intervals of approximate 66 feet across the width of the dissolved PCE plume. These locations are shown on Figure 3. Soil vapor samples were generally collected at target depths of 5 and 10 feet bgs, and just above groundwater at approximately 20 feet
- Drilling four boreholes along an east-west line within the cul-de-sac right of way at the west end of Ottawa Drive, west of and just east of Algonquin Drive. This location is near the west side of the residential area. These boreholes were spaced as far apart as possible within the cul-de-sac. These soil vapor sampling locations are shown on Figure 3. Soil vapor samples were generally collected at target depths of 5 feet and just above groundwater at approximately 12 feet
- Drilling six boreholes along a north-south line within the northbound lane of Spencer Street. These boreholes were drilled at intervals of approximately 66 feet across the width of the dissolved PCE plume. These soil vapor sampling locations are shown on Figure 3. Soil vapor samples were generally collected at target depths of 5 feet and just above groundwater at approximately 10 feet
- Two soil samples were collected at the three soil vapor sampling areas for a total of six soil samples.
- Soil vapor samples were submitted to a stationary analytical laboratory for analysis of PCE.
- Soil samples were submitted to a soil-testing laboratory for analysis of soil characteristics.
- This soil vapor assessment report was prepared for submission to NDEP for evaluation. This report includes the following:
    - Description of sampling procedures, deviations from planned sampling, and difficulties encountered during sampling.
    - Site location map (Figure 1); a utility location map (Figure 2); a site plan,

including sample locations, groundwater monitor wells locations, groundwater analytical results, and groundwater concentration contours (Figure 3); and two maps of soil vapor concentrations and estimated soil vapor concentration contours (Figures 4 and 5).

- Tables of soil vapor analytical results in micrograms per cubic meter ($\mu g/m^3$) and parts per billion of vapor (ppbv).

- Cross sections through the soil vapor study area showing the general lithology beneath the residential neighborhood and depth to groundwater (Figures 6 and 7).

- Copies of field data (borehole logs, etc.), analytical laboratory documentation including chain-of-custody (COC) forms, and geotechnical soil testing results (Appendices).

4 RATIONALE

This section presents the rationale for selecting the location of boreholes, the depth and number of soil and soil vapor samples, and the method for analyzing soil and soil vapor samples.

4.1.1 Analytes of Concern

Based on the results of investigations performed by Converse and URS, the contaminant of concern is PCE and its breakdown products. Soil characteristics of grain-size analysis, moisture content, bulk density, and grain density were also tested to help evaluate the nature of subsurface soils within the study area for use by NDEP in calculating potential risk exposure to the public.

4.1.2 Borehole Locations and Depths

Sixteen boreholes were drilled at the locations specified in Section 3.2 (Figure 2). The locations of these boreholes were selected to intercept the width of the dissolved PCE groundwater plume and to provide soil vapor data in the area where shallowest groundwater has been encountered. These boreholes were numbered SVB-01 through SVB-16 and were drilled using a track-mounted hollow stem auger drill rig. Boreholes were logged by field personnel to characterize the subsurface lithology (Appendix A). Boreholes were drilled so as not to encounter groundwater.

4.1.3 Soil Vapor Sampling

In general, soil vapor samples were collected at target depths of 5 feet, 10 feet, and just above groundwater in the boreholes located on The Boulevard Mall property. Soil vapor samples were generally collected at target depths of 5 feet and just above groundwater in boreholes within the residential area. These samples were collected to evaluate the variations in concentrations of PCE in soil at these depths. Deviations to the target vapor sampling depths are discussed in section 6 of this assessment.

4.1.4 Soil Sampling

Six soil samples were collected during the soil vapor assessment. Two soil samples, one shallow and one deep, were collected at each of the three vapor sampling areas. The shallow and deep soil samples were collected from a single borehole at each of the three locations. These samples were submitted to a soil-testing laboratory for analysis.

4.1.5 Soil Vapor Analysis

Soil vapor samples were analyzed for volatile organic compounds (VOCs) (specifically PCE, trichloroethylene, 1,2-dichloroethylene, and vinyl chloride) using U.S. EPA Method 8260B incorporating vapor standards with a holding time of 48 hours. The detection limit for PCE was 100 $\mu g/m^3$ (15 ppbv).

4.1.6 Soil Analysis

Soil samples were analyzed for grain size, moisture content, and bulk density by American Standard for Testing and Materials (ASTM) standards D-422, D-2216, and D-2937.

5 FIELD PROCEDURES

URS personnel performed the SOW following specific field methods and procedures. This section outlines the field equipment that was used, discusses the soil vapor and soil sampling procedures that were followed, presents the field documentation that was performed, and describes sample documentation and transport.

5.1 UNDERGROUND UTILITY CLEARANCE

Southern Nevada's "Call Before You Dig", which is maintained by Underground Service Alert, was contacted prior to drilling boreholes at the three soil vapor sampling areas: Spencer Street northbound between Ottawa Drive and Cherokee Lane, Ottawa Drive west and just east of Algonquin Drive, and the eastern border of the parking lot located on the east side of The Boulevard Mall. Subsurface public utilities within the right-of-way were marked by the utility services. Gas, sewer, and water lines were located along northbound Spencer Street with over-head power lines on the west side of the street in the median. A water line and storm drains were located near the drilling location along Ottawa Drive. No utilities were located at the drill sites on The Boulevard Mall property. A private utility locator was contracted to confirm utility locations on the mall property, specifically noting the location of irrigation lines as well as electricity to light fixtures in the parking lot. A utility overview is shown in Figure 2.

5.2 FIELD EQUIPMENT

URS and/or its subcontractor(s) maintained appropriate sampling materials and personal protective equipment onsite during the subsurface investigation. Materials included but were not be limited to:

Shipping supplies	Chains-of-custody forms
Tedlar bags	3-way valves
60cc syringes	pre-cut 1/8" OD nylon tubing
Leak detection compound	Drive rods with retractable probe
Rotary drive hammer	Soil sample jars
Sample labels	cooler with ice
Health & Safety Plan	Chart for purge volumes
Borehole logs	Field notebook
Safety Daily Task Analysis worksheets	Call Before You Dig tag numbers
Traffic Control tag numbers	55-gal DOT-approved drums
Drum labels	Nitrile gloves
Hard hats	Safety glasses
First aid kit	telephone
Orange vests	Hearing protection
Tool box	Field camera
Wash/rinse water	Trash bags
Generator	Gas for generator
Paper towels	Sealing plastic bags

Soil sampling sleeves	Sampling sleeve end caps
Teflon sheets	Track-mounted hollow stem auger rig

5.3 SOIL VAPOR SAMPLING

Soil vapor sampling was generally performed near the target sampling depths specified in Section 4.1.2. A track-mounted hollow stem auger drill rig was used to drill the boreholes to a depth of 4 feet, 9 feet bgs, and just above the vadose zone (i.e. approximately 1 foot above the target soil vapor sampling depths). Soil vapor sampling drive rods and soil vapor sample probe were assembled to the appropriate length and 1/8-inch outer diameter nylon sample tubing was inserted into the rods. The drive rods were then placed inside the hollow stem augers to the bottom of the borehole and a rotary-drive hammer was used to drive the soil vapor sampling probe a minimum of 1 foot into the soil to the target sampling depth. Once the soil vapor sampling probe was driven to the target sampling depth, a 1-foot thick layer of bentonite slurry was placed in the borehole through the auger creating a seal above the soil vapor sampling probe. Disposable vapor sample syringes were used to purge three vapor volumes from the sample tubing, after which soil vapor samples were collected in 0.5-liter Tedlar bags. The amount of soil vapor collected for each sample was approximately 400 cubic centimeters. Once a soil vapor sample was collected, the Tedlar bag was labeled and placed in a cardboard box to protect the sample from direct exposure to sunlight.

The original Soil Vapor Assessment Sampling Plan (URS, 2007) stated that URS would collect thirty-eight samples; however, some samples were not collected due to vapor lock in the sampling tubing caused by high moisture content of the soil or bentonite slurry clogging the air slits in the soil vapor probe.

A leak-check compound (1,1-difluoroethane) was utilized during the collection of soil vapor samples to assess the effectiveness of collecting vapor samples from the subsurface soil gas and not ambient air. Prior to collecting a soil vapor sample a paper towel saturated with the tracer gas was placed on the ground within one foot of where the Tedlar sample bags were filled. All sampling equipment, including Tedlar bags and sampling syringes, were stored in a separate space from the leak-check compound.

Tedlar bag samples were numbered by borehole number, a dash, and then the depth from which the sample was collected. For example, a soil vapor sample collected from 5 feet bgs in borehole SVB-01 was labeled, SVB-01-05. Soil vapor samples were labeled with the date and time the sample was collected, the sample and borehole number, and name of the firm and signature of the individual collecting the sample. A chain-of-custody form was filled out with all the appropriate sample information and accompanied the vapor samples to the analytical laboratory.

After collection of a soil vapor sample, the augers were advanced to the next target sampling interval and the sampling process was repeated. This drilling and sampling procedure continued until the correct number of soil vapor samples were collected at each sampling location (SVB-01 through SVB-16). Quality Control/Quality Assurance (QA/QC) soil vapor samples and several split soil vapor samples were collected during this assessment. Boreholes were backfilled to near ground surface using hydrated bentonite pellets and the boreholes were capped with 2 feet of concrete that is

flush with the ground surface.

5.4 SOIL SAMPLING

Two soil samples were collected at each of the three vapor sampling areas. The depth that the soil samples were collected in the boreholes was selected by field personnel based on the geologic conditions encountered. The soil drive samplers were placed on the drive rod and lowered into the hollow stem auger. The drive head was advanced approximately 1.5 to 2 feet into the ground using an approximate 140-pound drive hammer. The sampling head was removed from the borehole and the soil samples were taken from the sampling head.

The sleeved and ringed soil samples were placed in containers for transport to the soil-testing laboratory. Soil samples were numbered by borehole number, a dash, then the depth the sample was collected. For example, a soil sample collected from 5 feet bgs in borehole SVB-01 was labeled, SVB-01-05. Soil samples were labeled with the date and time the sample was collected, the sample and borehole number, and name of the firm and signature of the individual collecting the sample. A chain-of-custody from was filled out with all the appropriate sample information and accompanied the sleeved soil samples to the geotechnical laboratory.

5.5 DECONTAMINATION PROCEDURES

Decontamination of drilling equipment was not required during this assessment, as the soil in the study area was not contaminated with residual PCE and drilling did not extend to groundwater. The soil vapor sampling probe was decontaminated to keep free of soil. New sample tubing and syringes were used every time a vapor sample was collected. Disposable equipment intended for one-time use was not decontaminated but packaged for appropriate disposal.

5.6 FIELD DOCUMENTATION

Field activities were documented in writing and photographs were taken. URS personnel completed daily field logs and borehole logs (Appendix A). Each daily field log was dated and signed by URS personnel. Photographs were taken to record field activities (Appendix B).

5.7 SAMPLE DOCUMENTATION AND SHIPMENT

Soil vapor samples and soil samples were labeled with the date and time the sample was collected, the sample number, location where the sample was collected, and name for the firm and signature of the individual collecting the sample. Tedlar vapor sample bags were stored in a container to protect them from direct exposure to sunlight. Soil samples were collected from the 55-gallon DOT-approved drums containing soil cuttings and were placed in a cooler with ice to preserve the samples until arrival at the analytical laboratory. VOC analytical results from these soil samples were used to manage disposal of soil cuttings.

Chain-of-custody (COC) forms (Appendix C) were used to document sample collection and shipment to laboratories for analysis. Each soil vapor sample shipment for analyses was

accompanied by a COC form. The COC form identified the contents of each shipment and maintained the custodial integrity of the samples. Generally, a sample is considered to be in someone's custody if it is either in someone's physical possession, in someone's view, locked up, or kept in a secured area that is restricted to authorized personnel. Until the samples were shipped, the custody of the samples was the responsibility of URS personnel. URS field personnel signed the COC form in the "relinquished by" box and noted date and time. The COC form was signed by the laboratory representative upon receipt.

5.8 SITE RESTORATION

Areas of the work site that were disturbed or adversely impacted during the field investigation were restored to conditions similar to original at the completion of field activities.

5.9 SAMPLE CONTAINERS, ANALYTICAL METHODS, AND PRESERVATION

Table 5-1, below, lists the type of sample; type, number, and size of container; chemical preservative; analytical method; and holding times for soil vapor and soil samples.

Table 5-1. Summary of Sample Containers, Analytical Methods, and Preservation

Sample Type	Type and Number of Container	Size of Container	Chemical Preservation	EPA Analytical Method	Holding Time
Soil Vapor	Tedlar bags	0.5 liter	Protect from direct sunlight	VOC by SW 8260B	48 hours
Geotechnical Soil	Stainless steel sleeve and rings	6” sleeves 1.5” rings	None	Particle size by ASTM D422 Moisture by ASTM D2216 Soil Density by ASTM D2937	none

Notes: VOA = volatile organic analysis

5.10 QUALITY CONTROL

The type and number of field quality control samples collected during the soil vapor assessment were limited. Quality control samples generally consist of field duplicates, equipment or rinsate blanks, and trip blanks. Duplicate samples collected in the field provide precision information for the entire measurement system including sample acquisition, handling, shipping, storage, preparation, and analysis. The identity of duplicate samples is not revealed to the analysts and laboratory personnel. Duplicate samples are typically collected at a frequency of approximately 10 percent of the total investigative samples for each matrix.

Contamination of samples potentially introduced by reuse of equipment can be detected by means of analyzing an equipment or rinsate sample. Rinsate blanks are typically collected at a frequency of approximately 10 percent of the total investigative samples. Rinsate blanks consisting of the final rinse water are typically collected for non-disposable or non-dedicated sampling equipment after

decontamination has been performed. Trip blanks are used to investigate the integrity of the transport of samples to and from the laboratory. Typically, one trip blank per container per day is used.

Laboratory QA samples are called Laboratory Control Samples (LCS) and include method blank and matrix spikes. The LCS is based on the use of a standard, control matrix to generate precise and accurate data that are compared daily to the control limits. LCS information, in conjunction with method blank data, is used to assess daily laboratory performance. Matrix Spikes (MS) use an actual environmental sample to generate precision and accuracy that may be affected by the matrix. Typically, the MS is performed in duplicate as an MS/MS duplicate pair. MS/MS duplicate precision and accuracy information, supplemented with field blank results, are used to assess the effect of the matrix and field conditions on analytical data.

5.10.1 Duplicate Samples

The soil vapor SOW includes collection and analysis of four duplicate soil vapor samples during the assessment at the study area. These soil samples were analyzed for VOC as specified in Section 4.1.4.

5.10.2 Rinsate/Equipment Blank

No Rinsate blanks were collected during the soil vapor assessment.

5.10.3 Field Trip Blanks

Three trip blanks were used and analyzed, as soil vapor sampling occurred over a period of several days.

5.11 DISPOSAL OF RESIDUAL MATERIAL

The EPA's National Contingency Plan (NCP) requires that management of investigative-derived waste (IDW) generated during sampling activities comply with all applicable or relevant and appropriate requirements (ARARS) to the extent practicable. The SOW followed the *Office of Emergency and Remedial Response (OERR) Directive 9345.3-02* (May 1991), which provides the guidance for the management of IDW. During the field activities, different types of IDW were generated, including used personal protective equipment (PPE), disposable sampling equipment, and soil tailings from soil boreholes.

Used PPE and disposable equipment was double-bagged and placed in a municipal refuse dumpster. These wastes are not considered hazardous and can be sent to a municipal landfill. Any PPE and disposable equipment that was to be disposed of which could still be reused was rendered inoperable before disposal in the refuse dumpster.

Excess soil from drilling and sampling was placed in Department of Transportation (DOT)-approved 55-gallon drums. URS field personnel labeled the drums identifying it as soil (non-hazardous) and included the date, borehole number, firm, and signature of the URS personnel.

Analysis of the soil cuttings for VOCs confirmed that the soil was non-hazardous therefore it was disposed of at a permitted disposal facility. Decontamination water used for cleaning the reusable soil vapor probe was disposed of with the soil cuttings.

6 RESULTS OF SOIL VAPOR ASSESSMENT

6.1 SUBSURFACE LITHOLOGY

Subsurface lithology was logged by URS staff during drilling of the soil vapor boreholes. Borehole logs are provided in Appendix A. Six soil samples were collected from three of these boreholes (Table 6-1) during this assessment and submitted to a geotechnical laboratory for analysis of grain size, moisture content and bulk density by ASTM standards D 422, D 2216, and D-2937. Table 6-1 summarizes the soil testing data.

Table 6-1 SUMMARY OF GEOTECHNICAL SOIL CHARACTERISTICS

SAMPLE NUMBER	SAMPLE DEPTH (feet)	DATE SAMPLED	BULK DENSITY ASTM D 2937 (pcf)	MOISTURE CONTENT ASTM D 2937-04 (%)	GRAIN SIZE ASTM D 422
SVB-05-5.5	5.5	3/7/07	105.4	10.6	clayey sand with gravel
SVB-05-10	10	3/7/07	99.6	49.2	clayey silt
SVB-09-03	3	3/7/07	111.5	14.3	silty sand with clay
SVB-09-08	8	3/7/07	119.0	4.3	sandy gravel
SVB-13-8.5	8.5	3/19/07	118.5	6.8	gravelly sand
SVB-13-18.5	18.5	3/19/07	109.1	31.1	silty sand

Notes:
Sample number = SVB (Soil Vapor Borehole) - (borehole number) - (depth of sample in feet)
pcf = pounds per cubic foot, % = percent

Cross Sections A-A', B-B', and C-C' on Figures 6 and 7 show the generalized subsurface lithology of the off-site soil vapor study area. These cross sections also show the locations and depths of soil vapor boreholes and monitoring wells and approximate groundwater elevation. Cross section A-A' (Figure 6) is oriented west to east and is located near the center of the groundwater PCE plume. In general, the lithology beneath the Mall parking lot consists primarily of gravelly sand with a couple feet of caliche located approximately ten feet bgs. Between monitoring wells MW-18 and MW-25 the shallow subsurface lithology consists primarily of sandy silts with some sandy gravel near the surface at well MW-18 and thin layers of caliche at well MW-25. In general, the subsurface lithology east of well MW-25 consists of gravelly sand of varying thickness overlaying an approximately 8-foot thick layer silty sand, overlaying a silty clay. This general lithology change from west to east typifies a decrease in depositional energy on an alluvial fan. However, silts and clay are likely to be braided with paleochannels of sand and gravel. Cross section B-B' (Figure 7) displays a south to north cross section of soil vapor boreholes SVB-11 through SVB-16 located on The Boulevard Mall property. In general the vadose zone lithology at this location of the Mall

consists of 4 to 16 feet of artificial fill on top of native gravelly sand, silty sand, silt, and layers of caliche at the northern and southern ends near boreholes SVB-11 and SVB-16. Gravelly and silty sands encountered at depths in boreholes SVB-12, SVB-13, and SVB-14 seem to indicate the presence of channeled coarse grained materials at this location which may reflect braided paleochannels below the static water level. Cross section C-C' (Figure 7) shows a south to north cross section of soil vapor boreholes SVB-01 through SVB-06 located on northbound Spencer Street. The shallow subsurface lithology consisted primarily of artificial fill over layering silty sand with a small layer of sandy gravel at borehole SVB-03.

6.2 SOIL VAPOR RESULTS

6.2.1 Analytical Results

In March 2007 thirty-two soil vapor samples and four duplicate soil vapor samples were collected from sixteen boreholes located within the soil vapor study area during this assessment and submitted to a State certified analytical laboratory for analysis of VOC by EPA test method SW 8260B. The original Soil Vapor Assessment Sampling Plan (URS, 2007) stated that URS would collect thirty-eight soil vapor samples; however, one soil vapor sample from each of the boreholes SVB-01, SVB-07, SVB-11, SVB-12, SVB-14, and SVB-15 was not collected due to difficulties encountered during field activities. In certain soil locations the soil formation was too tight to drive the soil vapor drive rods deep enough to collect a sample. In some instances when the target depth was achieved the formation was either too tight or too moist resulting in a vapor lock on the sample tubing. Also, there were instances where the air slits in the soil vapor sampling probe became clogged with bentonite slurry resulting in vapor lock.

Eleven soil vapor samples were collected along Spencer Street, seven along Ottawa Street, and 14 at the mall. The soil vapor samples were collected at approximate depths of 5 to 10 feet bgs and just above groundwater. Soil vapor analytical results and the depth from which they were collected are listed in Table 6-2. The analytical laboratory reported PCE concentrations in micrograms per liter (µg/L). At the request of NDEP this reports lists PCE concentrations in micrograms per cubic meter (µg/m^3) and parts per billion by volume (ppbv). Calculations for conversion of units are listed in section 6.2.2. Chain-of-Custody forms and laboratory analytical results are provided in Appendix C.

Table 6-2 SUMMARY OF PCE VAPOR CONCENTRATIONS IN SOIL

SAMPLE NUMBER	SAMPLE DEPTH (feet)	DATE SAMPLED	SOIL TYPE	PCE			LCC (1)
				µg/L	µg/m^3	ppbv	µg/L
SVB-01-05	5	3/6/07	Silty Sand (Af)	2.5	2,500	369	ND
SVB-02-04	4	3/6/07	Silty Sand (Af)	3.0	3,000	443	ND
SVB-02-10	10	3/6/07	Silty Sand	ND	ND	ND	ND
SVB-03-05	5	3/6/07	Silty Sand (Af)	46	46,000	6,786	ND

SVB-03-12	12	3/6/07	Silty Sand	0.8	800	118	ND
SVB-04-05	5	3/6/07	Silty Sand (Af)	0.4	400	59	ND
SVB-04-12	12	3/6/07	Silty Sand	1.0	1,000	148	ND
SVB-05-08	8	3/7/07	Silty Sand	25	25,000	3,688	ND
SVB-05-98 (2)	8	3/7/07	Silty Sand	17	17,000	2,508	ND
SVB-05-13	13	3/7/07	Silty Sand	1.1	1,100	162	ND
SVB-06-08	8	3/7/07	Silty Sand	ND	ND	ND	ND
SVB-06-12	12	3/7/07	Silty Sand	12	12,000	1,770	ND
SVB-07-05	5	3/7/07	Silty Sand (Af)	11	11,000	1,623	25
SVB-08-05	5	3/7/07	Silty Sand (Af)	2.7	2,700	398	ND
SVB-08-10	10	3/7/07	Silty Sand	7.1	7,100	1,047	ND
SVB-08-910 (2)	10	3/7/07	Silty Sand	15	15,000	2,213	ND
SVB-09-05	5	3/7/07	Silty Sand (Af)	9.0	9,000	1,328	ND
SVB-09-10	10	3/7/07	Gravelly Sand	23	23,000	3,393	ND
SVB-10-05	5	3/7/07	Sand	42	42,000	6,196	ND
SVB-10-10	10	3/7/07	Sand	27	27,000	3,983	ND
SVB-11-10	10	3/20/07	Sandy Silt	0.5	500	74	ND
SVB-11-910 (2)	10	3/20/07	Sandy Silt	0.4	400	59	ND
SVB-11-15	15	3/20/07	Sandy Silt	ND	ND	ND	ND
SVB-12-05	5	3/20/07	Gravelly Sand (Af)	ND	ND	ND	210
SVB-12-10	10	3/20/07	Gravely Sand	3.0	3,000	443	ND
SVB-13-05	5	3/19/07	Gravelly Sand (Af)	24	24,000	3,541	ND
SVB-13-10.5	10.5	3/19/07	Gravelly Sand (Af)	37	37,000	5,458	ND
SVB-13-910.5 (2)	10.5	3/19/07	Gravelly Sand (Af)	45	45,000	6,639	11
SVB-13-20	20	3/19/07	Sandy Silt	35	35,000	5,163	690
SVB-14-10	10	3/19/07	Silt	87	87,000	12,835	ND
SVB-14-20	20	3/19/07	Silty Sand	170	170,000	25,079	ND
SVB-15-15	15	3/19/07	Silt	ND	ND	ND	240
SVB-15-20	20	3/19/07	Silt	0.2	200	30	12
SVB-16-5	5	3/19/07	Gravelly Sand (Af)	ND	ND	ND	30
SVB-16-10	10	3/19/07	Gravelly Sand	ND	ND	ND	ND
SVB-16-20.5	20.5	3/19/07	Silt	0.6	600	89	ND
Trip Blank	-	3/6/07		ND	ND	ND	ND
Trip Blank	-	3/7/07		ND	ND	ND	ND
Trip Blank	-	3/19/07		ND	ND	ND	ND
Reporting Limit				0.1	100	15	10

Notes:
Sample number = SVB (Soil Vapor Borehole) - (borehole number) - (depth of sample in feet)
PCE = tetrachloroethylene, LCC = leak check compound, Af = artificial fill, ND = Analyte not detected at or above the reporting limit
µg/L = Micrograms per liter, µg/m^3 = Micrograms per cubic meter, ppbv = Parts per billion by vapor
(1) 1,1-Difluoroethane was used as the LCC

[(2)] Soil samples SVB-05-98, SVB-08-910, SVB-11-910, and SVB-13-910.5 are duplicates for samples SVB-05-08, SVB-08-10, SVB-11-10, and SVB-13-10.5 respectively.

6.2.2 Unit Conversion Calculations

The state certified analytical laboratory reported PCE concentrations in µg/L as documented in the laboratory analytical parts provided in Appendix C. At the request of NDEP, this assessment lists PCE concentrations in $\mu g/m^3$ and ppbv. The following are calculations for conversion of units from µg/L to $\mu g/m^3$ and ppbv. Results of these conversions are listed in Table 6-2.

µg/L to $\mu g/m^3$

$(1\ \mu g/L)(1\ L/1000ml)(1\ ml/cm^3)(1x10^6\ cm^3/m^3) = 1000\ \mu g/m^3$
$1\ \mu g/L = 1000\ \mu g/m^3$ or $0.001\ \mu g/L = 1\ \mu g/m^3$

$\mu g/m^3$ to ppbv

First the ideal gas law PV=nRT is used to convert the measured PCE mass to a volume:

$$P_{air}\ V_{PCE} = n_{PCE}\ R\ T_{air}$$

P_{air} is air pressure [kPa] where P [kPa] = P [atm] x 101.325
V_{PCE} is volume occupied by the contaminant
n is the number of moles of PCE (mass of PCE / molecular weight of PCE)
R is the universal gas constant 8.314 [L kPa K^{-1} mol^{-1}]
T_{air} is air temperature in Kelvin [K] where T[K] = T[ºC] + 273.15

To solve for volume of PCE:

$$V_{PCE}\ [L] = \frac{\text{Mass}_{PCE}\ [g]}{\text{Molecular Weight}_{PCE}\ [\ g/mole]} \times \frac{8.314\ [L\ kPa]}{K\ mol} \times \frac{T_{air}\ [K]}{P_{air}\ [kPa]}$$

To calculate ppbv, the volume of the PCE is then divided by the volume of the sample measured:

$$ppbv = \frac{V_{PCE}\ [\mu L]}{V_{sample}\ [m^3]}$$

Based on the two equations above, ppbv can be converted from $\mu g/m^3$ using the following equation:

$$ppbv = \frac{\mu g}{m^3} \times \frac{1}{\text{Molecular Weight}_{PCE}\ [\ g/mole]} \times \frac{8.314\ [L\ kPa]}{K\ mol} \times \frac{T_{air}\ [K]}{P_{air}\ [kPa]}$$

The molecular weight of PCE is 165.83 g/mole. Assuming a temperature of 25 ºC (298.15 K) and 1 atmosphere pressure (101.325 kPa), ppbv is calculated as follows:

$$ppbv = \frac{\mu g}{m^3} \times \frac{1}{165.83\ g/mole} \times \frac{8.314\ [L\ kPa]}{K\ mol} \times \frac{298.15\ K}{101.325\ kPa}$$

6.2.3 Discussion of Analytical Data

Based on the soil vapor analytical results from this assessment, 29 of 36 soil vapor samples submitted were found to contain PCE concentrations ranging from 200 $\mu g/m^3$ to 170,000 $\mu g/m^3$ (30 ppbv to 25,079 ppbv). The highest concentration of PCE detected in soil vapor during this assessment was in soil vapor sample SVB-14-20 which was collected at approximately 20 feet bgs, just above groundwater, located in the mall parking lot near the center of the dissolved PCE groundwater plume (Figure 3).

In general, the soil vapor PCE analytical data seems to reflect groundwater PCE concentrations. At several sampling locations there is a general increase in PCE soil vapor concentrations with depth. This is not the case at all sampling locations, however. For example, at sampling locations SVB-02 through SVB-05 (Figure 5) there are higher PCE soil vapor concentrations in the shallow portion of the soil vapor boreholes (4 to 5 feet bgs) than the deep (10 to 13 feet bgs). This may reflect the presence of utility trench backfill (artificial fill) material to approximately 5+ feet at these locations. At soil vapor sampling locations SVB-08 and SVB-09 (Figure 4) it appears to be the opposite situation where PCE soil vapor concentrations are lower in the silty backfill material than at depth in the relatively less silty native sands. Based on the analytical results, there doesn't appear to be a north-south concentration trend along Spencer. However, soil vapor sampling on the Boulevard Mall property appears to indicate that PCE soil vapor concentrations mimic PCE groundwater concentrations. PCE soil vapor concentrations may also be controlled by local subsurface lithology. Caliche and silts were encountered primarily in boreholes SVB-11, SVB-15 and SVB-16 at both ends of the sampling area at the Mall, while silty sands and sands were encountered in boreholes SVB-12, SVB-13 and SVB-14 in the center of the sampling area on the Mall property (Figure 4). These later boreholes are near what URS has interpreted from the groundwater data as the center of the groundwater plume near the west end of Ottawa where it abuts the Mall parking lot. In general, the lithology encountered in the boreholes on the Boulevard Mall property included a few to several feet of artificial backfill overlaying native soil, silts and sands. The general lithology beneath the soil vapor sampling areas is depicted in Cross Sections A-A', B-B', and C-C' (Figures 6 and 7).

7 QUALIFICATIONS AND SIGNATURES

This Off-site Soil Vapor Assessment report was prepared by URS for Al Phillips and submitted to NDEP. The qualifications of the individuals involved in the preparation of this report are known to Al Phillips and NDEP.

Prepared by:

Scott Ball

Scott Ball, C.E.M.
Project Environmental Manager

Reviewed by:

Scott Ball for

Dennis Connair
Senior Technical Reviewer

7.1 CERTIFIED ENVIRONMENTAL MANAGER STATEMENT

The following statement is required by NDEP for Environmental Managers who practice in Nevada:

> *"I hereby certify that all laboratory analytical data was generated by a laboratory certified by the NDEP for each constituent and media presented herein."*
>
> *"I, Scott Ball, hereby certify that I am responsible for the services described in this document and for the preparation of this document. The services described in this document have been provided in a manner consistent with the current standards of the profession and to the best of my knowledge comply with all applicable federal, state and local statutes, regulations and ordinances."*

Scott Ball

_____

Scott Ball
Certified Environmental Manager No. 1316
(Expires October 15, 2007)

8 REFERENCES

EPA, 2002. OSWER Draft Guidance for Evaluating the Vapor Intrusion to Indoor Air Pathway from Groundwater and Soils (Subsurface Vapor Intrusion Guidance), dated November 2002.

Luskey's Las Vegas Criss Cross City Directory, Lusky Brothers & Co., Publishers, 1982.

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URS, 2005. Subsurface Investigation, Former Al Phillips the Cleaner Site, Maryland Square Shopping Center, Las Vegas, NV, dated July 11, 2005 .

URS, 2006. Source Removal Corrective Action Plan, Former Al Phillips the Cleaner Site, Maryland Square Shopping Center, Las Vegas, NV, dated November 13, 2006.

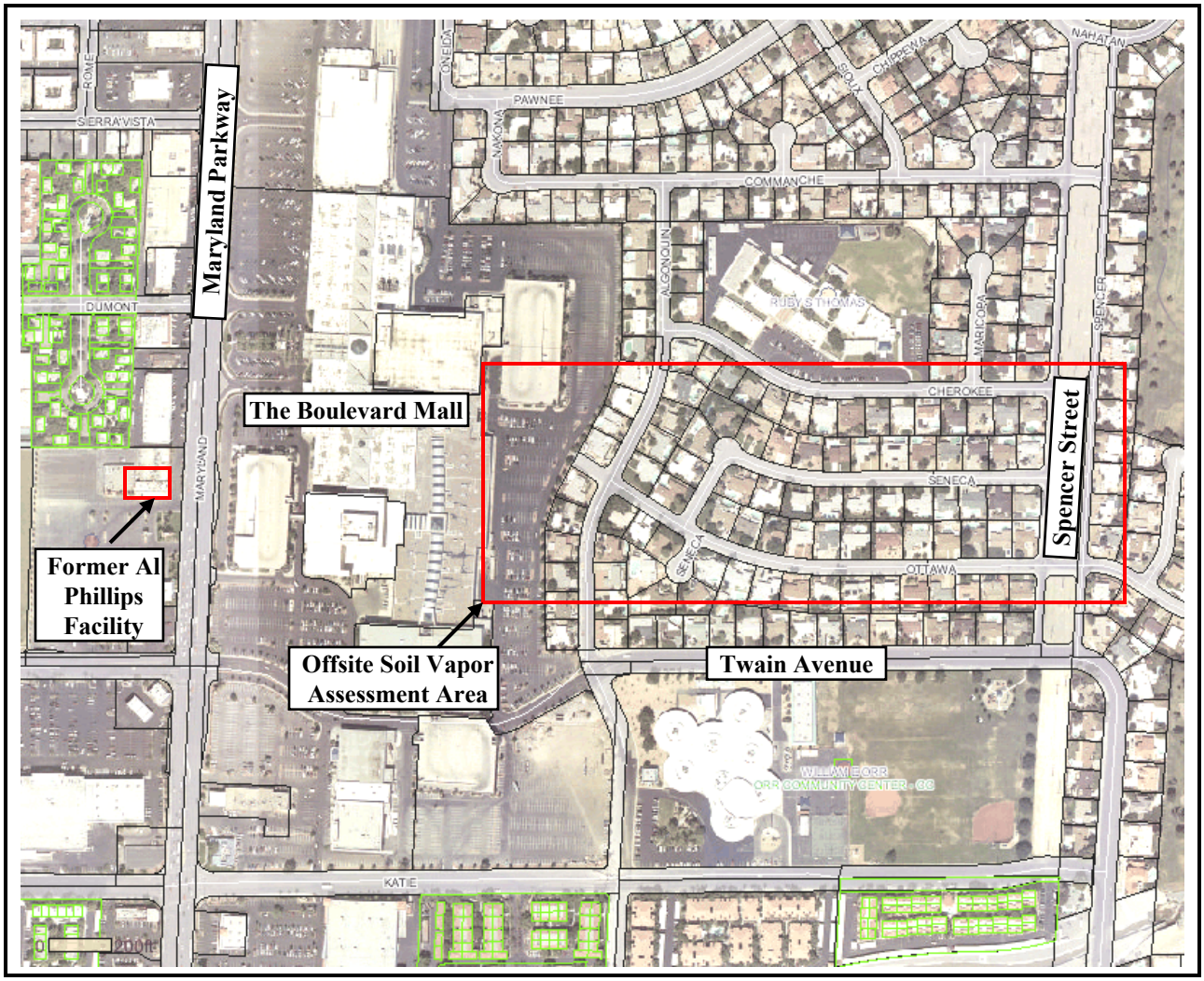
URS, 2007. Quarterly Groundwater Sampling, 4th Quarter 2006, Former Al Phillips the Cleaner Site, Maryland Square Shopping Center, Las Vegas, NV, dated January 5, 2007.

URS, 2007. Soil Vapor Assessment Sampling Plan, Former Al Phillips Facility, Maryland Square Shopping Center, Las Vegas, NV, dated January 24, 2007.

URS, 2007. Source Area Soil Assessment, Former Al Phillips Facility, Maryland Square Shopping Center, Las Vegas, NV, dated February 23, 2007.

US Geological Survey 7.5-minute Las Vegas SW, Nevada Quadrangle, 1983 modified.

FIGURES



Source: Clark County Assessors Web Site
Scale: 200 feet

N

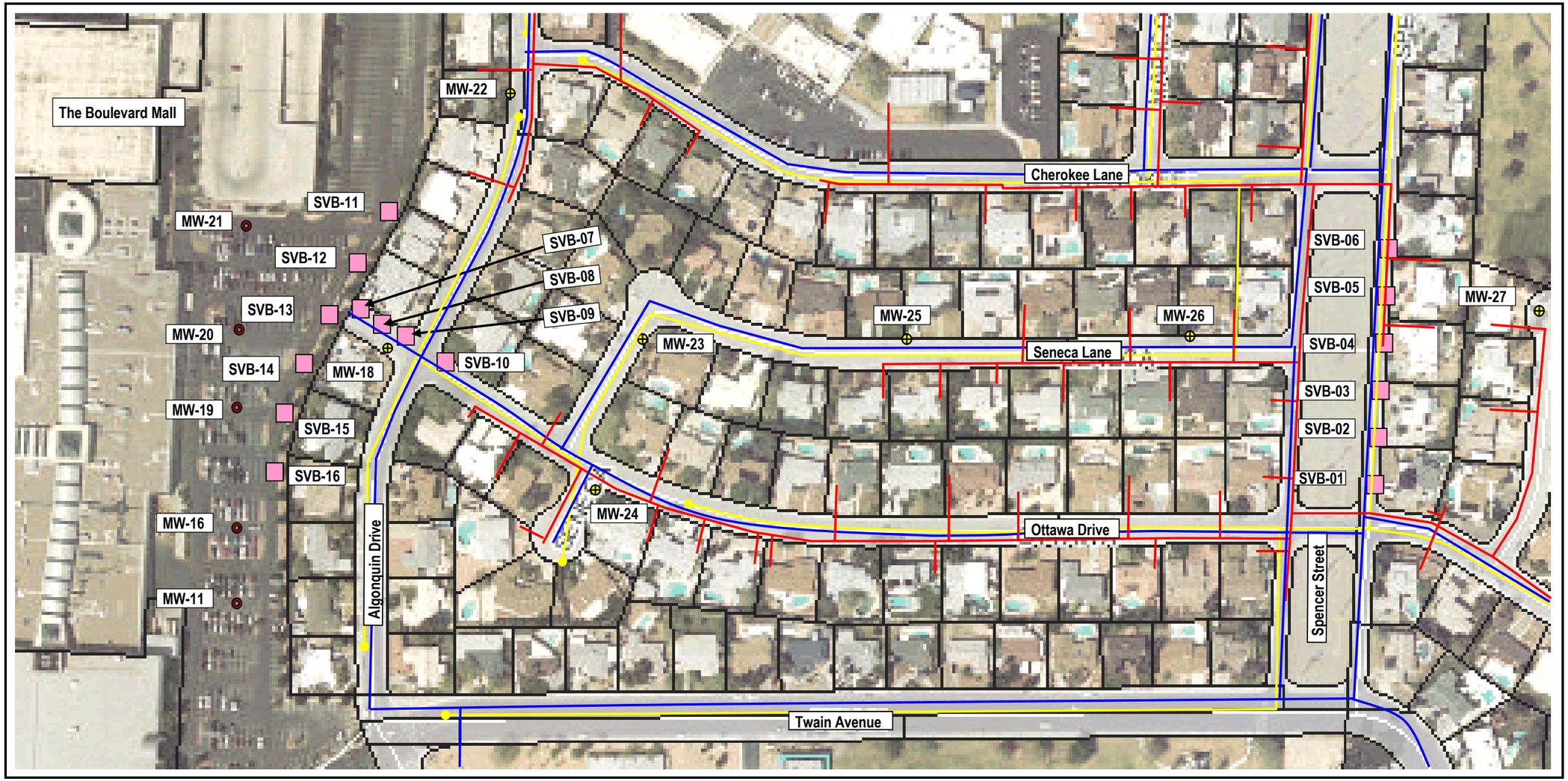
SITE LOCATION MAP

Off-site Soil Vapor Assessment
Al Phillips The Cleaner
Maryland Square Shopping Center
3661 South Maryland Parkway
Las Vegas, Nevada

URS

April 2007
Job No. 26698724

MS Soil Vapor Assessment Fig 1.ppt FIGURE 1



Source: Clark County Assessors Web Site

Scale: 0 Feet — 200 Feet

N

URS

Legend:

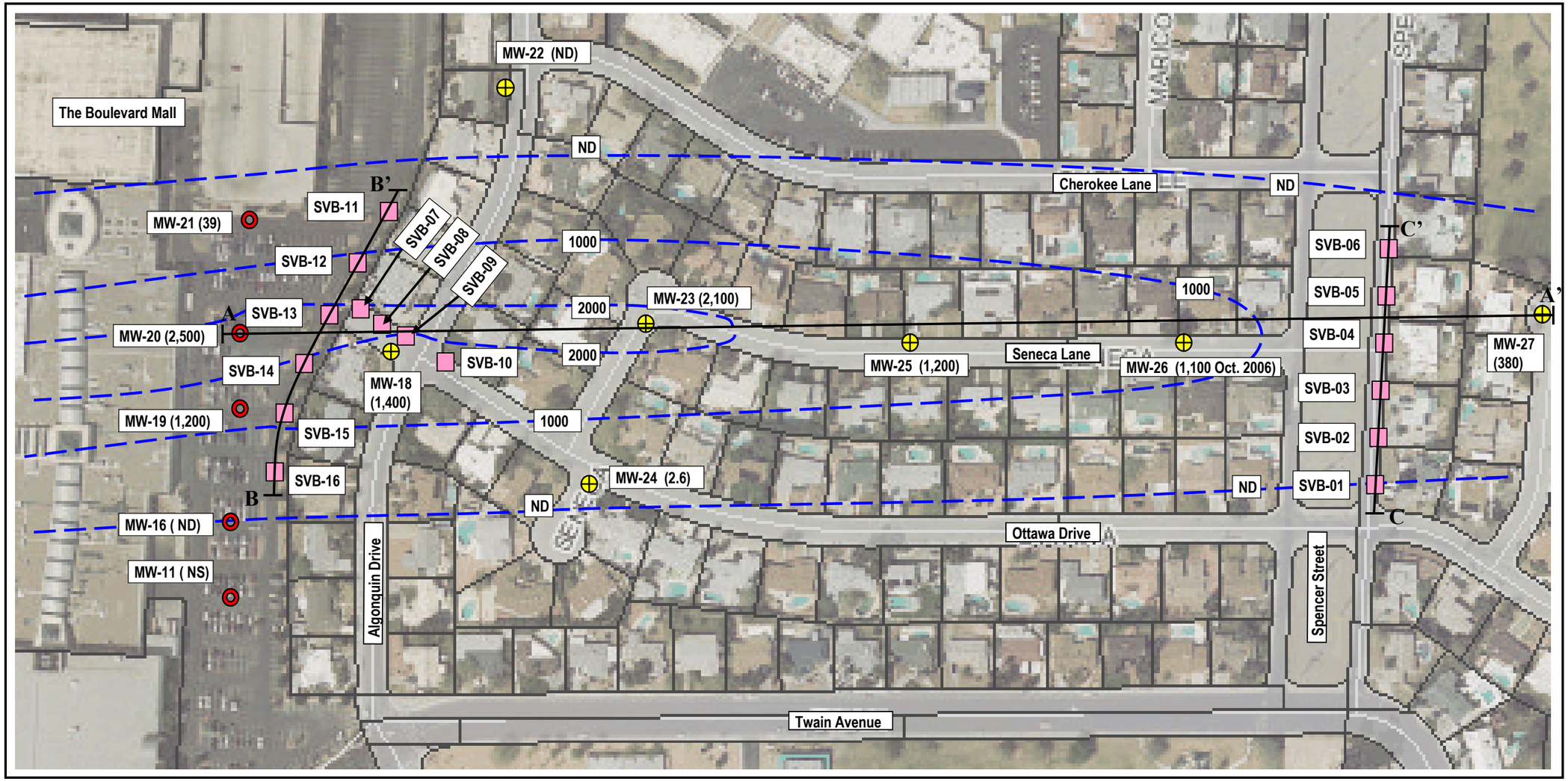
- Approximate Location of Monitoring Well Installed by URS.
- Approximate Location of Monitoring Well Installed by Converse.
- Approximate Location of Soil Vapor Sampling Borehole.
- Approximate Location of Gas Lines.
- Approximate Location of Water Lines.
- Approximate Location of Sanitary Sewer Lines (yellow circles indicate ends of sanitary sewer lines).

UTILITY OVERVIEW

Off-site Soil Vapor Assessment
Al Phillips The Cleaner
Maryland Square Shopping Center
3661 South Maryland Parkway
Las Vegas, Nevada

April 2007
Job No. 26698724
MS Soil Vapor Assessment Fig2.ppt

FIGURE 2



Source: Clark County Assessors Web Site Scale: 0Feet 200 Feet

N

URS

Legend:

- Approximate Location of Monitoring Well Installed by URS Showing Concentration (µg/L) of PCE in Groundwater. ND is Non-detect. Analytical Data form October and December 2006.
- Approximate Location of Monitoring Well Installed by Converse Showing Concentration (µg/L) of PCE in Groundwater. ND is Non-detect, NS is Not Sampled. Analytical Data from December 2006.
- Approximate Concentration Contour of PCE in Groundwater.
- Approximate Location of Soil Vapor Sampling Borehole.

GROUNDWATER PCE CONCENTRATIONS AND LOCATIONS OF SOIL VAPOR SAMPLING

Off-site Soil Vapor Assessment
Al Phillips The Cleaner
Maryland Square Shopping Center
3661 South Maryland Parkway
Las Vegas, Nevada

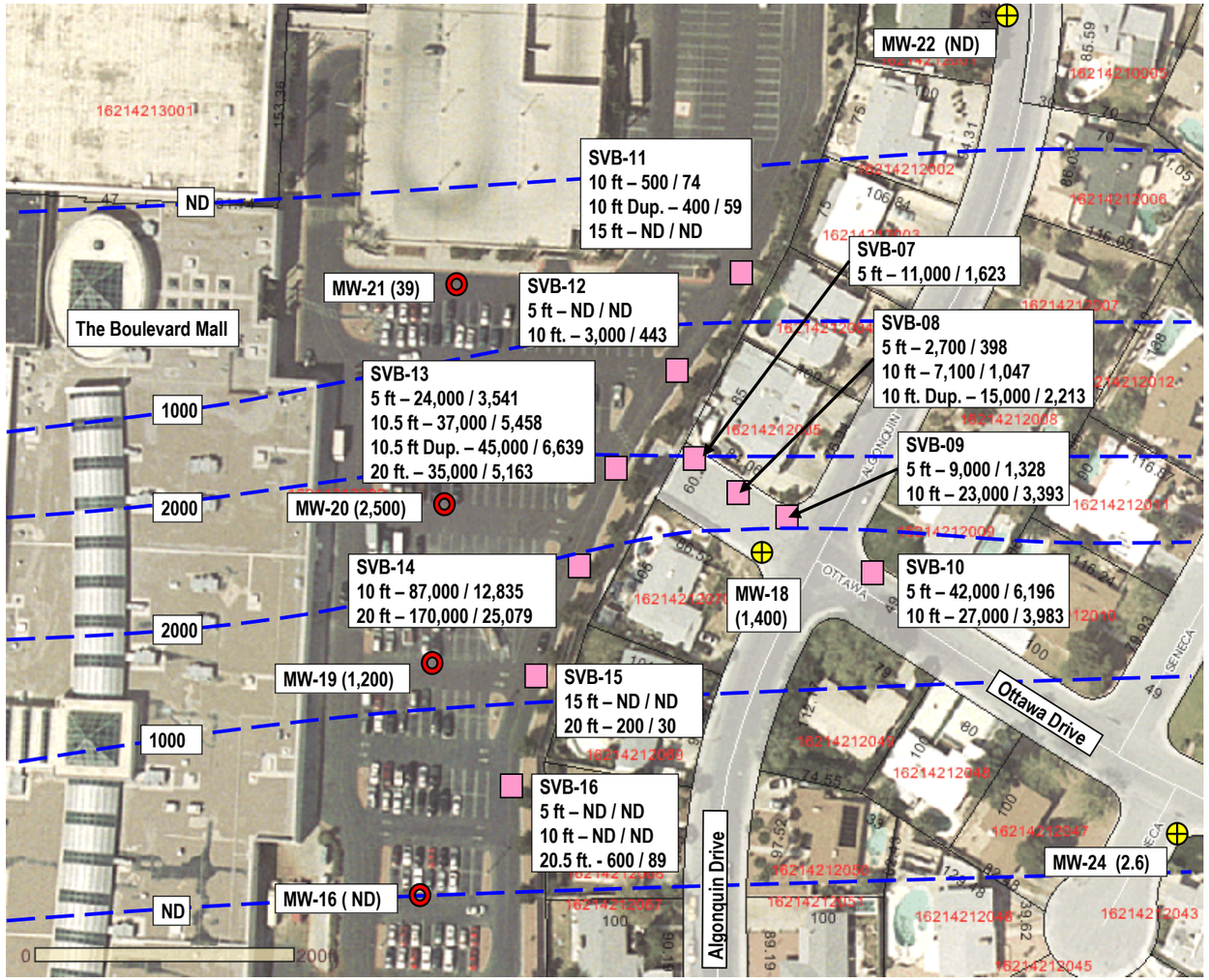
April 2007
Job No. 26698724
MS Soil Vapor Assessment Fig3.ppt

FIGURE 3

Summary of PCE Soil Vapor Concentrations

Sample Number	Sample Depth [1]	Soil Type	Soil Vapor Concentrations ug/L	ug/m³	ppbv
SVB-07-05	5	Silty Sand (Af)	11	11,000	1,623
SVB-08-05	5	Silty Sand (Af)	2.7	2,700	398
SVB-08-10	10	Silty Sand	7.1	7,100	1,047
SVB-08-910[2]	10	Silty Sand	15	15,000	2,213
SVB-09-05	5	Silty Sand (Af)	9.0	9,000	1,328
SVB-09-10	10	Gravelly Sand	23	23,000	3,393
SVB-10-05	5	Sand	42	42,000	6,196
SVB-10-10	10	Sand	27	27,000	3,983
SVB-11-10	10	Sandy Silt	0.5	500	74
SVB-11-910[2]	10	Sandy Silt	0.4	400	59
SVB-11-15	15	Sandy Silt	ND	ND	ND
SVB-12-05	5	Gravelly Sand (Af)	ND	ND	ND
SVB-12-10	10	Gravelly Sand	3.0	3,000	433
SVB-13-05	5	Gravelly Sand (Af)	24	24,000	3,541
SVB-13-10.5	10.5	Gravelly Sand (Af)	37	37,000	5,458
SVB-13-910.5[2]	10.5	Gravelly Sand (Af)	45	45,000	6,639
SVB-13-20	20	Sandy Silt	35	35,000	5,163
SVB-14-10	10	Silt	87	87,000	12,835
SVB-14-20	20	Silty Sand	170	170,000	25,079
SVB-15-15	15	Silt	ND	ND	ND
SVB-15-20	20	Silt	0.2	200	30
SVB-16-5	5	Gravelly Sand (Af)	ND	ND	ND
SVB-16-10	10	Gravelly Sand	ND	ND	ND
SVB-16-20.5	20.5	Silt	0.6	600	89

Notes: PCE = tetrachloroethene, ND = Analyte not detected at or above the reporting limit, ug/L = Micrograms per liter, ug/m³ = Micrograms per cubic meter, ppbv = Parts per billion by volume, [1] Depth in feet (ft.) below ground surface, [2] Soil samples SVB-08-910, SVB-11-910, and SVB-13-910.5 are duplicates for samples SVB-08-10, SVB-11-10, and SVB-13-10.5 respectively.



Source: Clark County Assessors Web Site

Scale: 0 Feet — 200 Feet

N

URS

Legend:

- Approximate Location of Monitoring Well Installed by URS Showing Concentration (µg/L) of PCE in Groundwater. Analytical Data form October and December 2006.
- Approximate Location of Monitoring Well Installed by Converse Showing Concentration (µg/L) of PCE in Groundwater. ND is Non-detect, NS is Not Sampled. Analytical Data from December 2006.
- Approximate Concentration Contour of PCE in Groundwater.
- Approximate Location of Soil Vapor Sampling Borehole Showing Concentration (µg/m³ and ppbv) of PCE in Soil Vapor Collected From Shallow and Deeper Soil Above Groundwater.

GROUNDWATER PCE CONCENTRATIONS and SOIL VAPOR PCE CONCENTRATIONS

AT OTTAWA DRIVE AND THE BOULEVARD MALL EAST PARKING LOT

Off-site Soil Vapor Assessment
Al Phillips The Cleaner
Maryland Square Shopping Center
3661 South Maryland Parkway
Las Vegas, Nevada

April 2007
Job No. 26698724
MS Soil Vapor Assessment Fig4.ppt

FIGURE 4

Summary of PCE Soil Vapor Concentrations

Sample Number	Sample Depth [1]	Soil Type	Soil Vapor Concentrations ug/L	ug/m^3	ppbv
SVB-01-05	5	Silty Sand (Af)	2.5	2,500	369
SVB-02-04	4	Silty Sand (Af)	3.0	3,000	443
SVB-02-10	10	Silty Sand	ND	ND	ND
SVB-03-05	5	Silty Sand (Af)	46	46,000	6,786
SVB-03-12	12	Silty Sand	0.8	800	118
SVB-04-05	5	Sand (Af)	0.4	400	59
SVB-04-12	12	Silty Sand	1.0	1,000	148
SVB-05-08	8	Silty Sand	25	25,000	3,688
SVB-05-98[2]	8	Silty Sand	17	17,000	2,508
SVB-05-13	13	Silty Sand	1.1	1,100	162
SVB-06-08	8	Silty Sand	ND	ND	ND
SVB-06-12	12	Silty Sand	12	12,000	1,770

Notes:

PCE = tetrachloroethene

ND = Analyte not detected at or above the reporting limit

ug/L = Micrograms per liter

ug/m^3 = Micrograms per cubic meter

ppbv = Parts per billion by volume

(1) Depth in feet (ft.) below ground surface

(2) Soil sample SVB-05-98 is a duplicate for samples SVB-05-08.

Source: Clark County Assessors Web Site

Scale: 0 Feet — 200 Feet

N

URS

Legend:

- Approximate Location of Monitoring Well Installed by URS Showing Concentration (µg/L) of PCE in Groundwater. Analytical Data form October and December 2006.
- Approximate Concentration Contour of PCE in Groundwater.
- Approximate Location of Soil Vapor Sampling Borehole Showing Concentration (µg/m^3 and ppbv) of PCE in Soil Vapor Collected From Shallow and Deeper Soil Above Groundwater.

GROUNDWATER PCE CONCENTRATIONS and SOIL VAPOR PCE CONCENTRATIONS

ALONG SPENCER STREET

Off-site Soil Vapor Assessment

Al Phillips The Cleaner

Maryland Square Shopping Center

3661 South Maryland Parkway

Las Vegas, Nevada

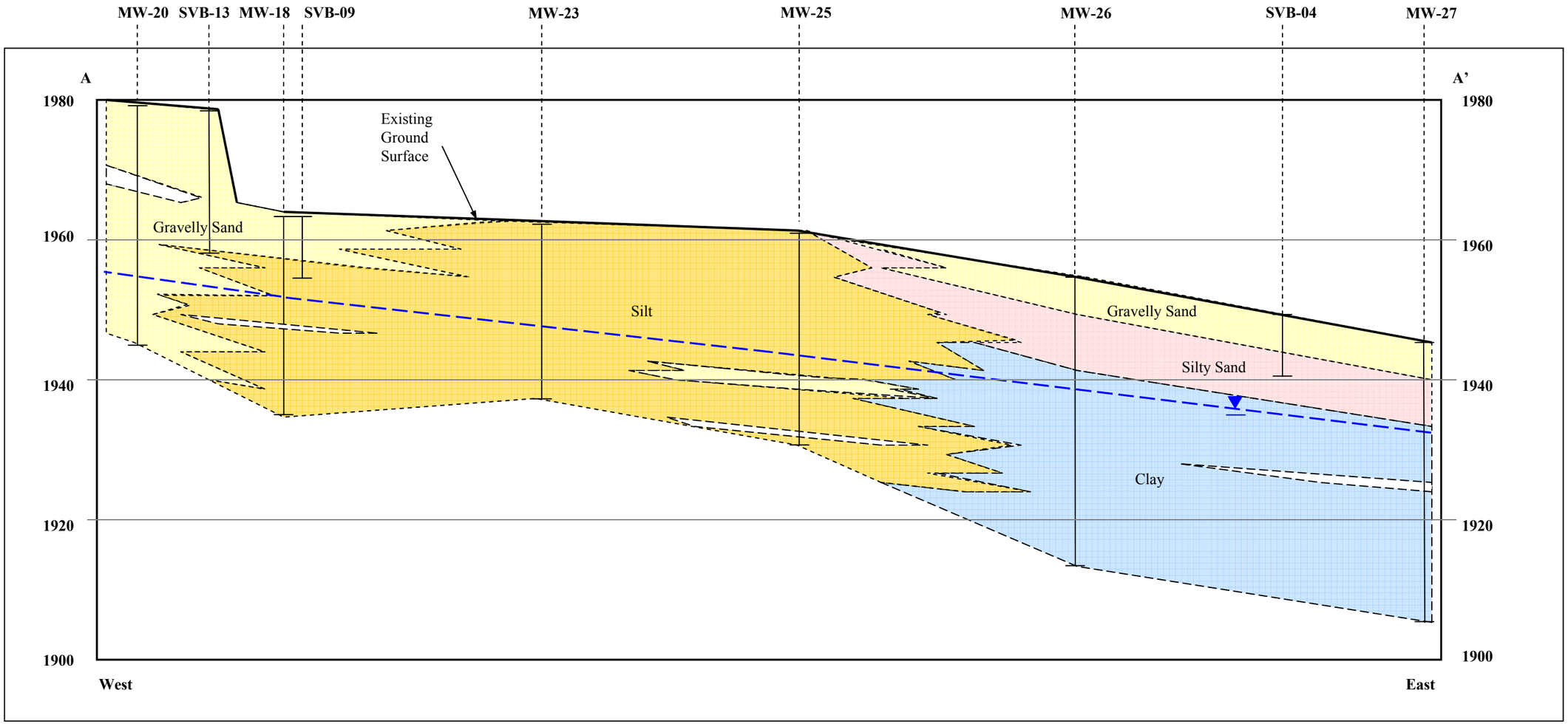
April 2007

Job No. 26698724

MS Soil Vapor Assessment Fig5.ppt

FIGURE 5

CROSS SECTION A – A’



Horizontal Scale: 0 — 200 feet

Vertical Scale: 0 — 20 feet

Note:

Legend:

Approximate April 2007 Groundwater Surface

- Gravelly Sand
- Caliche
- Silty Sand
- Silt
- Clay

URS

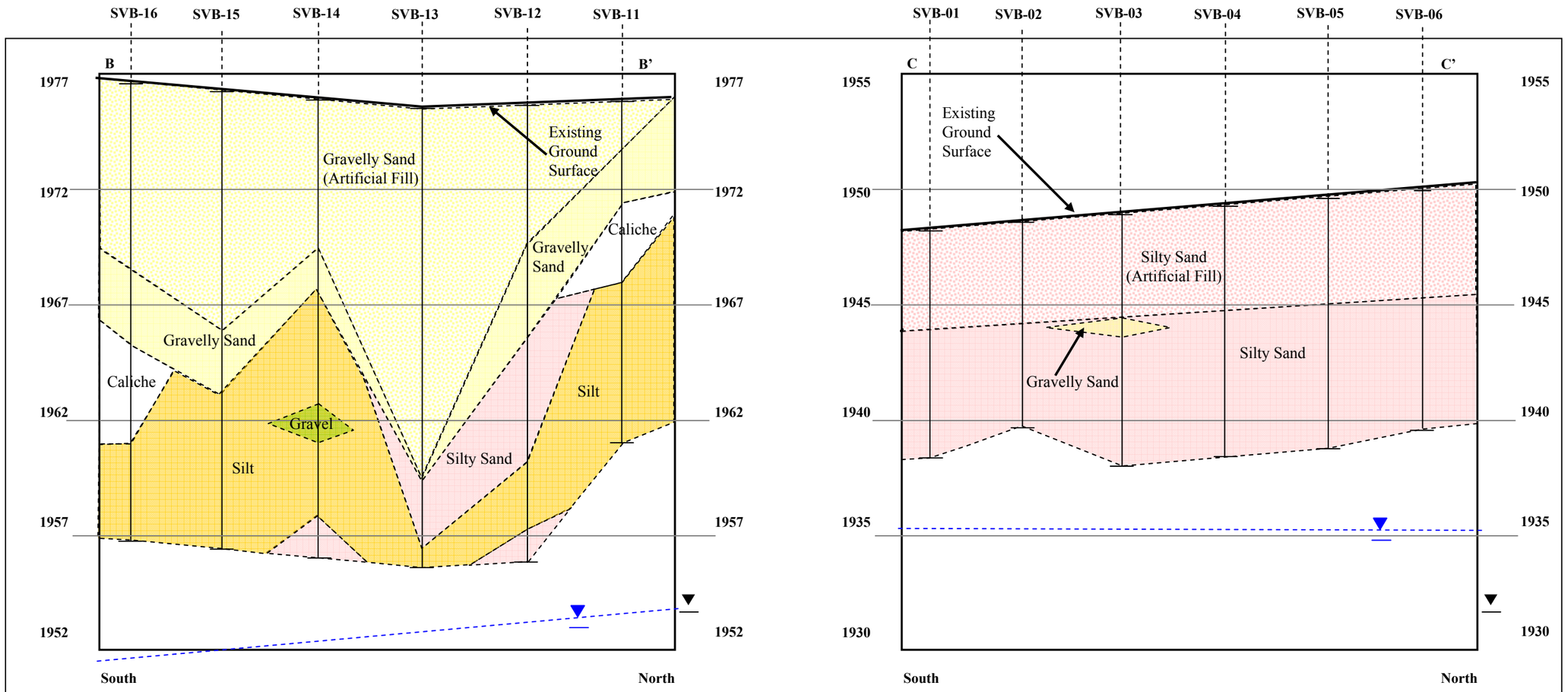
CROSS SECTION A-A’

Off-site Soil Vapor Assessment
Al Phillips The Cleaner
Maryland Square Shopping Center
3661 South Maryland Parkway
Las Vegas, Nevada

April 2007
Job No. 26698724

MS Soil Vapor Assessment Fig 6.ppt FIGURE 6

CROSS SECTIONS B – B' AND C – C'



Horizontal Scale: 0 — 70 feet

Vertical Scale: 0 — 5 feet

Legend:

Approximate March 2007 Groundwater Surface

- Gravel
- Gravelly Sand
- Caliche
- Silty Sand
- Silt
- Clay

URS

CROSS SECTIONS B – B' AND C – C'

Off-site Soil Vapor Assessment
Al Phillips The Cleaner
Maryland Square Shopping Center
3661 South Maryland Parkway
Las Vegas, Nevada

April 2007
Job No. 26698724

MS Soil Vapor Assessment Fig 7.ppt FIGURE 7

APPENDIX A – BOREHOLE LOGS AND FIELD NOTES

BOREHOLE LOG
SVB-01

Al Phillips The Cleaner
Maryland Square
Offsite Soil Vapor Sampling
Las Vegas, Nevada

Project No. 26698724

Date Started:	3-6-2007
Date Completed:	3-6-2007
Drilling Company:	Eagle Drilling
Drilling Method:	Hollow stem auger
Sampling Method:	Active Soil Vapor
Logged By:	Lisa Lowe

Depth In Feet	Time (0100 hrs)	Sample	Blow Count (ft)	PID/FID (ppm)	Sample Number	USCS/Other	Graphic Log	SOIL DESCRIPTION	Elev.:	Remarks
0	0745							0-4.5" ASPHALT		H&S Tailgate meeting
1								@ 4.5" SAND: silty, fine-grained, lt. brown, sl. moist, med. dense, poorly graded w. sl. plasticity, some pea gravel, artificial fill		
2						Af				
3										
4										
5	0910	V			SVB-01-05			@ 4.5' SAND: silty, some gravel, fine-grained, lt. brown, sl. moist, med. Dense, poorly graded		Soil vapor sample collected @ 5' bgs
6										
7						SM				
8										
9										
10	0940							Bottom of borehole @ 10' bgs Groundwater not encountered		Difficult to drive soil vapor collection rod Soil vapor sample not collected @ 11' bgs due to vapor lock
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										
25										

BOREHOLE LOG
SVB-02

Al Phillips The Cleaner
Maryland Square
Offsite Soil Vapor Sampling
Las Vegas, Nevada

Project No. 26698724

Date Started: 3-6-2007
Date Completed: 3-6-2007
Drilling Company: Eagle Drilling
Drilling Method: Hollow stem auger
Sampling Method: Active Soil Vapor
Logged By: Lisa Lowe

Depth In Feet	Time (0100 hrs)	Sample	Blow Count (ft)	PID/FID (ppm)	Sample Number	USCS/Other	Graphic Log	SOIL DESCRIPTION	Elev.:	Remarks
0	1000							0-4.5" ASPHALT		
1						Af		@ 4.5" SAND: silty, fine-grained, lt. brown, sl. moist, med. dense, poorly graded w. sl. plasticity, some pea gravel, artificial fill		
2										
3										
4	1021	V			SVB-02-04					Soil vapor sample collected @ 4' bgs
5								@ 4.5' SAND: silty, some gravel, lt. brown, sl. moist, med. dense, poorly graded		
6						SM		@5.5' same as above w. some pea gravel		
7										
8										
9										
10	1048	V			SVB-02-10			Bottom of borehole @ 9' bgs Groundwater not encountered		Soil vapor sample collected @ 10' bgs
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										
25										

BOREHOLE LOG
SVB-03

Al Phillips The Cleaner
Maryland Square
Offsite Soil Vapor Sampling
Las Vegas, Nevada

Project No. 26698724

Date Started: 3-6-2007
Date Completed: 3-6-2007
Drilling Company: Eagle Drilling
Drilling Method: Hollow stem auger
Sampling Method: Active Soil Vapor
Logged By: Lisa Lowe

Depth In Feet	Time (0100 hrs)	Sample	Blow Count (ft)	PID/FID (ppm)	Sample Number	USCS/Other	Graphic Log	SOIL DESCRIPTION	Elev.:	Remarks
0	1117					Af		0-4.5" ASPHALT @ 4.5" SAND: silty, some pea gravel, fine-grained, lt. brown, sl. moist, med. dense, poorly graded, artificial fill		
5	1127	V			SVB-03-05	SG SM		@ 4.5' SAND: gravelly, silty, fine-grained, lt. brown, sl. moist, med. dense, well graded @ 5.5' SAND: silty, coarse-grained, lt. brown, sl. moist, med. dense, poorly graded		Soil vapor sample collected @ 5' bgs
11								Bottom of borehole @ 11' bgs Groundwater not encountered		
12	1147	V			SVB-03-12					Soil vapor sample collected @ 12' bgs

BOREHOLE LOG
SVB-04

Al Phillips The Cleaner
Maryland Square
Offsite Soil Vapor Sampling
Las Vegas, Nevada

Project No. 26698724

Date Started: 3-6-2007
Date Completed: 3-6-2007
Drilling Company: Eagle Drilling
Drilling Method: Hollow stem auger
Sampling Method: Active Soil Vapor
Logged By: Lisa Lowe

Depth In Feet	Time (0100 hrs)	Sample	Blow Count (ft)	PID/FID (ppm)	Sample Number	USCS/Other	Graphic Log	SOIL DESCRIPTION	Elev.:	Remarks
0	1200					Af		0-4.5" ASPHALT @ 4.5" SAND: silty, some pea-sized gravel, fine-grained, lt. brown, sl. moist med. dense, poorly graded, artificial fill		
5	1235	V			SVB-04-05	SM		@ 4' SAND: silty, some pea gravel, fine-grained, lt. brown, sl. moist, med. dense, poorly graded		Soil vapor sample collected @ 5' bgs
11								Bottom of borehole @ 11' bgs Groundwater not encountered		
12	1252	V			SVB-04-12					Soil vapor sample collected @ 12' bgs

BOREHOLE LOG
SVB-05

Al Phillips The Cleaner
Maryland Square
Offsite Soil Vapor Sampling
Las Vegas, Nevada

Project No. 26698724

Date Started: 3-7-2007
Date Completed: 3-7-2007
Drilling Company: Eagle Drilling
Drilling Method: Hollow stem auger
Sampling Method: Active Soil Vapor
Logged By: Lisa Lowe

Depth In Feet	Time (0100 hrs)	Sample	Blow Count (ft)	PID/FID (ppm)	Sample Number	USCS/Other	Graphic Log	SOIL DESCRIPTION	Elev.:	Remarks
0								0-4.5" ASPHALT		Utilities cleared with air knife to 5.5' bgs
1										
2										
3										
4										
5										
6	1344	■	5/11/15		SVB-05-5.5			@ 5.5' SAND: silty, fine-grained, lt. brown, sl. moist, med. dense, poorly graded		Soil sample collected @ 5.5' bgs Very soft drilling.
7										
8	1401	V			SVB-05-08	SM				Soil vapor sample and duplicate collected @ 8' bgs
9	1405	V			SVB-05-98					
10	1417	■	5/10/14		SVB-05-10			@ 10' same as above w. some caliche stringers		Soil sample collected @ 10' bgs
11								Bottom of borehole @ 11' bgs Groundwater not encountered		
12										
13	1435	V			SVB-05-13					Soil vapor sample collected @ 13' bgs
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										
25										

BOREHOLE LOG
SVB-06

Al Phillips The Cleaner
Maryland Square
Offsite Soil Vapor Sampling
Las Vegas, Nevada

Project No. 26698724

Date Started: 3-7-2007
Date Completed: 3-7-2007
Drilling Company: Eagle Drilling
Drilling Method: Hollow stem auger
Sampling Method: Active Soil Vapor
Logged By: Lisa Lowe

Depth In Feet	Time (0100 hrs)	Sample	Blow Count (ft)	PID/FID (ppm)	Sample Number	USCS/Other	Graphic Log	SOIL DESCRIPTION	Elev.:	Remarks
0								0-4.5" ASPHALT		Utilities cleared with air knife to 5.5'bgs.
1										
2										
3										
4										
5										
6	1510							ASSUMED:		Began drilling after soil vapor sample SVB-06-08 collected
7						SM		SAND: silty, fine-grained, lt. brown, sl. moist, med. dense		
8	1504	V			SVB-06-08					Soil vapor sample collected @ 8' bgs
9										
10										
11								Bottom of borehole @ 10.5'		
12	1523	V			SVB-06-12			Groundwater not encountered		Soil vapor sample collected @ 12' bgs
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										
25										

BOREHOLE LOG
SVB-07

Al Phillips The Cleaner
Maryland Square
Offsite Soil Vapor Sampling
Las Vegas, Nevada

Project No. 26698724

Date Started:	3-7-2007
Date Completed:	3-7-2007
Drilling Company:	Eagle Drilling
Drilling Method:	Hollow stem auger
Sampling Method:	Active Soil Vapor
Logged By:	Lisa Lowe

Depth In Feet	Time (0100 hrs)	Sample	Blow Count (ft)	PID/FID (ppm)	Sample Number	USCS/Other	Graphic Log	SOIL DESCRIPTION	Elev.:	Remarks
0	0749					Af		0-3" ASPHALT		H&S Tailgate meeting
1								@ 3" SAND: gravelly, lt. brown, sl. moist, med. dense w. sl plasticity, well graded artificial fill		
2										
3								@ 1.5' SAND: silty, very fine grained, lt. brown, sl. moist, med. dense, poorly graded		
4						SM				
5	0809	V			SVB-09-05					Soil vapor sample collected @ 5' bgs
6										Field blank soil vapor sample collected
7										
8								@ 8' same as above w. some pea gravel		
9								Bottom of borehole @ 9' bgs		Very difficult to drive rod
10	0855							Groundwater not encountered		Soil vapor sample not collected due to vapor lock
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										
25										

BOREHOLE LOG
SVB-08

Al Phillips The Cleaner
Maryland Square
Offsite Soil Vapor Sampling
Las Vegas, Nevada

Project No. 26698724

Date Started: 3-7-2007
Date Completed: 3-7-2007
Drilling Company: Eagle Drilling
Drilling Method: Hollow stem auger
Sampling Method: Active Soil Vapor
Logged By: Lisa Lowe

Depth In Feet	Time (0100 hrs)	Sample	Blow Count (ft)	PID/FID (ppm)	Sample Number	USCS/Other	Graphic Log	SOIL DESCRIPTION	Elev.:	Remarks
0	0924					Af		0-4.5" ASPHALT @ 4.5" SAND: gravelly, lt. brown, sl. moist, med. dense, well graded w. sl. plasticity, artificial fill		
1										
2						SM		@ 1' SAND: silty, lt. brown, sl. moist, med. dense, well graded w. sl. plasticity @ 2' SAND: silty, some gravel, lt. brown, sl. moist, med. dense		
3	0932									
4										
5	1007	V			SVB-08-05					Soil vapor sample collected @ 5' bgs
6						SG		@ 6' SAND: gravelly, silty, lt. brown, sl. moist, med. dense, well graded		
7										
8										
9								Bottom of borehole @ 8.5' bgs Groundwater not encountered		
10	1039	V			SVB-08-10					Collected soil vapor sample and duplicate @ 10' bgs
11	1042	V			SVB-08-910					
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										
25										

BOREHOLE LOG
SVB-09

Al Phillips The Cleaner
Maryland Square
Offsite Soil Vapor Sampling
Las Vegas, Nevada

Project No. 26698724

Date Started: 3-7-2007
Date Completed: 3-7-2007
Drilling Company: Eagle Drilling
Drilling Method: Hollow stem auger
Sampling Method: Active Soil Vapor
Logged By: Lisa Lowe

Depth In Feet	Time (0100 hrs)	Sample	Blow Count (ft)	PID/FID (ppm)	Sample Number	USCS/Other	Graphic Log	SOIL DESCRIPTION	Elev.:	Remarks
0	1102							0-4.5" ASPHALT		
1								4.5" – 1' SAND: gravelly, lt. brown, sl. moist, med. dense, well graded w. sl. plasticity, artificial fill		
2	1108	B			SVB-09-0.5/3	Af		@ 1' SAND: silty, lt. brown, sl. moist, med. dense, poorly graded, w. sl. plasticity, artificial fill.		Bulk soil sample collected from 0.5 to 3' bgs
3	1113		9/8/15		SVB-09-03T SVB-09-03R			@ 2' same as above but more silt		Soil sample collected @ 3' bgs
4								@ 4' SAND: silty, fine grained, some caliche, lt. brown, sl moist, med dense, poorly graded		
5	1125	V			SVB-09-05	SM				Soil vapor sample collected @ 5' bgs
6										
7	1140	B			SVB-09-07	SG		@ 6' SAND: gravelly (pea gravel), lt. brown, sl. moist, med. dense, well graded w. large caliche modules		Bulk soil sample collected @ 7' bgs
8	1142		42 50/5"		SVB-09-08T SVB-09-08R	SM		@ 8' SAND: silty, coarse grained w. some gravel, lt. brown, moist, med. dense		Soil sample collected @ 8'bgs
9								Bottom of borehole @ 9' bgs Groundwater not encountered		
10	1203	V			SVB-09-10					Soil vapor sample collected @ 10- bgs
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										
25										

BOREHOLE LOG
SVB-10

Al Phillips The Cleaner
Maryland Square
Offsite Soil Vapor Sampling
Las Vegas, Nevada

Project No. 26698724

Date Started: 3-7-2007
Date Completed: 3-7-2007
Drilling Company: Eagle Drilling
Drilling Method: Hollow stem auger
Sampling Method: Active Soil Vapor
Logged By: Lisa Lowe

Depth In Feet	Time (0100 hrs)	Sample	Blow Count (ft)	PID/FID (ppm)	Sample Number	USCS/Other	Graphic Log	SOIL DESCRIPTION	Elev.:	Remarks
0	1221					Af		0-4" ASPHALT 4" – 1.5' SAND: gravelly, lt. brown, sl. moist, med. dense, well graded w. sl. plasticity, artificial fill		
1										
2								@1.5' SAND: lt. brown, sl. moist, med. dense, poorly graded w. sl. plasticity		
3										
4										
5	1234	V			SVB-10-05	SP				Collected soil vapor sample @ 5' bgs
6										
7										
8										
9								Bottom of borehole @ 9' bgs Groundwater not encountered		
10	1250	V			SVB-10-10					Collected soil vapor sample @ 10' bgs
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										
25										

BOREHOLE LOG
SVB-11

Al Phillips The Cleaner
Maryland Square
Offsite Soil Vapor Sampling
Las Vegas, Nevada

Project No. 26698724

Date Started: 3-20-2007
Date Completed: 3-20-2007
Drilling Company: Eagle Drilling
Drilling Method: Hollow stem auger
Sampling Method: Active Soil Vapor
Logged By: Scott Ball

Depth In Feet	Time (0100 hrs)	Sample	Blow Count (ft)	PID/FID (ppm)	Sample Number	USCS/Other	Graphic Log	SOIL DESCRIPTION	Elev.:	Remarks
0	0838							0-4.5" ASPHALT		
1								4" – 4.5' SAND: gravelly, silty, lt. tan, sl moist, med dense, well graded, sl. plasticity, artificial fill		
2						Af				
3										
4										
5	0852					CALICHE		@4.5' CALICHE: silty, gravelly, cream to white, dry, hard, pea gravel, not well cemented		Soil vapor sample not collected @ 5' bgs
6										
7								@ 7' SILT: some sand, pink, dry, stiff		
8						ML				
9								@ 9' SILT: reddish brown, moist, stiff, med plasticity, some coarse sand		
10	0905	V			SVB-11-10					Collected soil vapor sample @ 10' bgs
11					SVB-11-910					
12						ML				
13										
14										
15	0926	V			SVB-11-15			Bottom of borehole @ 15' bgs. Groundwater not encountered.		Collected soil vapor sample @ 15' bgs
16										
17										
18										
19										
20										
21										
22										
23										
24										
25										

BOREHOLE LOG
SVB-12

Al Phillips The Cleaner
Maryland Square
Offsite Soil Vapor Sampling
Las Vegas, Nevada

Project No. 26698724

Date Started: 3-20-2007
Date Completed: 3-20-2007
Drilling Company: Eagle Drilling
Drilling Method: Hollow stem auger
Sampling Method: Active Soil Vapor
Logged By: Scott Ball

Depth In Feet	Time (0100 hrs)	Sample	Blow Count (ft)	PID/FID (ppm)	Sample Number	USCS/Other	Graphic Log	SOIL DESCRIPTION	Elev.:	Remarks
0	0715							0"-4" ASPHALT		H&S Tailgate Meeting
1								4" – 7' SAND: gravelly, silty, lt. tan, sl. moist, med. dense, well graded, sl. plasticity, artificial fill.		
2						Af				
3										
4										
5	0723	V			SVB-12-05					Collected soil vapor sample @ 5' bgs
6										
7								@ 7' SAND: gravelly, v. dk. brown, sl. moist, med. dense, well graded gravel w. v. lt. plasticity		
8						SG				
9										
10	0746	V			SVB-12-10					Collected soil vapor sample @ 10' bgs
11								@ 11' SAND: silty, lt. tan, sl. moist, med. dense w. some caliche stringers		
12						SM				
13								@ 13' SAND: silt and some pea gravel, brown, moist, dense		
14						SM				
15										
16								@ 16' SILT: sandy, some gravel, brown, moist, stiff		
17						ML				
18								@ 18' SAND: silty, fine grained, tan, moist, dense		
19						SM				
20	0808							Bottom of borehole @ 20' bgs. Groundwater not encountered		No vapor sample collected due to vapor lock.
21										
22										
23										
24										
25										

BOREHOLE LOG
SVB-13

Al Phillips The Cleaner
Maryland Square
Offsite Soil Vapor Sampling
Las Vegas, Nevada

Project No. 26698724

Date Started:	3-19-2007
Date Completed:	3-19-2007
Drilling Company:	Eagle Drilling
Drilling Method:	Hollow stem auger
Sampling Method:	Active Soil Vapor
Logged By:	Scott Ball

Depth In Feet	Time (0100 hrs)	Sample	Blow Count (ft)	PID/FID (ppm)	Sample Number	USCS/Other	Graphic Log	SOIL DESCRIPTION	Elev.:	Remarks
0	1227							0-4" ASPHALT		
1								4" – 16' SAND: gravelly, silty, lt. tan, sl. moist, med. dense, well graded, sl. plasticity, artificial fill		
2						Af				
3										
4										
5	1238	V			SVB-13-05					Soil vapor sample collected @ 5' bgs
6										
7										
8	1254		33		SVB-13-8.5R					Soil samples collected @ 8.5' bgs
9			50/5"		SVB-13-8.5T					
10										
11	1308	V			SVB-13-10.5					Soil vapor sample and duplicate collected @ 10.5' bgs
		V			SVB-13-910.5					
12										
13										
14										
15										
16								@16" SAND: silt, fine grained, lt. brown to orange, moist, med. dense, same as bottom of borehole SVB-14		
17						SM				
18										
19	1325		13/18		SVB-13-18.5R SVB-13-18.5T	ML		@ 19.25" SILT: sandy, brn., moist, stiff, some motteling in color, med. plasticity		Soil samples collected @ 18.5' bgs
20	1343	V			SVB-13-20			Bottom of borehole @ 20" bgs. Groundwater not encountered		Soil vapor sample collected @ 20' bgs
21										
22										
23										
24										
25										

BOREHOLE LOG
SVB-14

Al Phillips The Cleaner Maryland Square Offsite Soil Vapor Sampling Las Vegas, Nevada Project No. 26698724	Date Started: Date Completed: Drilling Company: Drilling Method: Sampling Method: Logged By:	3-19-2007 3-19-2007 Eagle Drilling Hollow stem auger Active Soil Vapor Scott Ball

Depth In Feet	Time (0100 hrs)	Sample	Blow Count (ft)	PID/FID (ppm)	Sample Number	USCS/Other	Graphic Log	SOIL DESCRIPTION	Elev.:	Remarks
0	1052					Af		0-4" ASPHALT 4"-7' SAND: gravely, silty, lt. tan, sl. moist, med. dense, well graded gravel, sl. plasticity, artificial fill.		
5	1104									No soil vapor sample collected @ 5' bgs
7						SG		@ 7' SAND: gravel, v. dk. brown, sl. moist, med. dense, well graded gravel, v. high plasticity		
8								@ 8.5' SILT: some gravel and course sand, lt. tan to cream, sl. moist, stiff		
10	1122	V			SVB-14-10	ML				Soil vapor sample collected @ 10' bgs
13						GS		@ 13' GRAVEL: sandy, silty, lt. brown, moist, med. dense		
15						ML		@ 15" SILT: sandy w. some gravel, lt. brown, moist, stiff, increase sand w. depth		
18						SM		@ 18' SAND: silty, fine grained, lt. brown to orange, moist, med. dense		
20	1153	V			SVB-14-20			Bottom of borehole @ 20' bgs, Groundwater not encountered		Soil vapor collected sample @ 20' bgs

BOREHOLE LOG
SVB-15

Al Phillips The Cleaner
Maryland Square
Offsite Soil Vapor Sampling
Las Vegas, Nevada

Project No. 26698724

Date Started: 3-19-2007
Date Completed: 3-19-2007
Drilling Company: Eagle Drilling
Drilling Method: Hollow stem auger
Sampling Method: Active Soil Vapor
Logged By: Scott Ball

Depth In Feet	Time (0100 hrs)	Sample	Blow Count (ft)	PID/FID (ppm)	Sample Number	USCS/Other	Graphic Log	SOIL DESCRIPTION	Elev.:	Remarks
0	0913							0-4" ASPHALT		
1								4"-11' SAND: gravely, silty, lt. tan, sl. moist, med. dense, well graded gravel, sl. plasticity, artificial fill.		
2						Af				
3										
4										
5	0923									No soil vapor sample collected
6										
7										
8										
9										
10	0940									No soil vapor sample collected
11								@ 11' SAND: gravely, v.dk. brown, sl. moist, med. dense, well graded gravel, v.lt.plasticity		
12						SG				
13										
14								@ 13.5' SILT: some gravel and coarse sand, lt. tan to cream, sl. moist, stiff		
15	1000	V			SVB-15-15	ML				Soil vapor sample collected @ 15' bgs
16										
17										
18								@ 18' same as above but reddish brown		
19										
20								Bottom of borehole @ 20' bgs, groundwater not encountered		
21	1022	V			SVB-15-20					Soil vapor sample collected at 20.5' bgs
22										
23										
24										
25										

BOREHOLE LOG
SVB-16

Al Phillips The Cleaner
Maryland Square
Offsite Soil Vapor Sampling
Las Vegas, Nevada

Project No. 26698724

Date Started: 3-19-2007
Date Completed: 3-19-2007
Drilling Company: Eagle Drilling
Drilling Method: Hollow stem auger
Sampling Method: Active Soil Vapor
Logged By: Scott Ball

Depth In Feet	Time (0100 hrs)	Sample	Blow Count (ft)	PID/FID (ppm)	Sample Number	USCS/Other	Graphic Log	SOIL DESCRIPTION	Elev.:	Remarks
0	0718							0-4" ASPHALT		No utilities
1								4"-8.5' SAND: gravely, silty, lt. tan, sl. moist, med. dense, well graded gravel, sl. plasticity, artificial fill.		H&S Tailgate Meeting
2						Af				
3										
4										
5	0742	V			SVB-16-05					Soil vapor sample collected @ 5' bgs
6										
7										
8										
9						SG		@8.5' SAND: gravely, v.dk. brown, sl. moist, med. dense, well graded gravel, v.lt.plasticity		
10	0805	V			SVB-16-10					Soil vapor sample collected @ 10' bgs
11										
12						CALICHE		@ 11.5' CALICHE,: silty, gravelly, cream to white, dry, hard		
13										
14										
15	0820									
16								@ 16' SILT: reddish brown., moist, stiff, some coarse sand		
17										
18						ML				
19										
20								Bottom of borehole @ 20' bgs, Groundwater not encountered		
21	0832	V			SVB-16-20.5					Soil vapor sample collected at 20.5' bgs
22										
23										
24										
25										

URS

SHEET 1 OF 12

PROJECT AP- Maryland Square — PROJECT NO. 26698724.00005

SUBJECT Depth to Groundwater — BY L. Lowe — DATE 3/1/07

REVIEWED BY _____ — DATE _____

3/1/07 1115 Collected supplies - Solinst water level/ probe, socket wrench, paper towels, dawn water. PPE Level D.

1145 Arrived at MS MW-27

MW-27
Depth to water 12.20' BTOC ~ 12.70' bgs

1152 Mob to MW-24

MW-24
Depth to water 15.71' BTOC ~ 16.07' bgs

1202 Mob to MW-18

Depth to water 11.32' BTOC ~ 11.52' bgs

1209 Mob to Blvd Mall.
Vertical drop from east side of parking lot on east side of Mall to west end of Ottawa Drive.

↓ 11.70' top to bottom at slight angle so slightly less than 11.70'

1216 Mob to MW-20
Depth to water 25.61' Btoc ~ 26.8' bgs

1222 Mob to Office Depot beside Boulevard Mall
purchased boxes + peanuts to mail vapor samples
water for drinking in field.

1240 Mob to AP-80

3/1/07

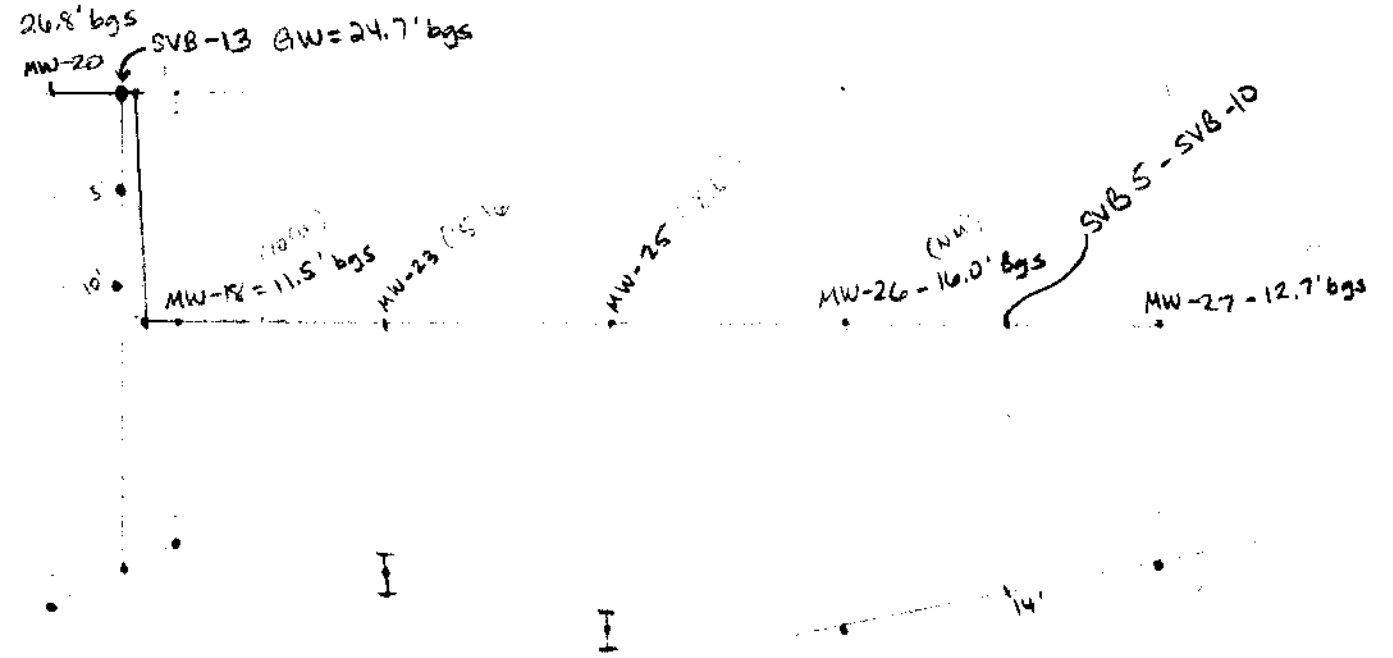
URS

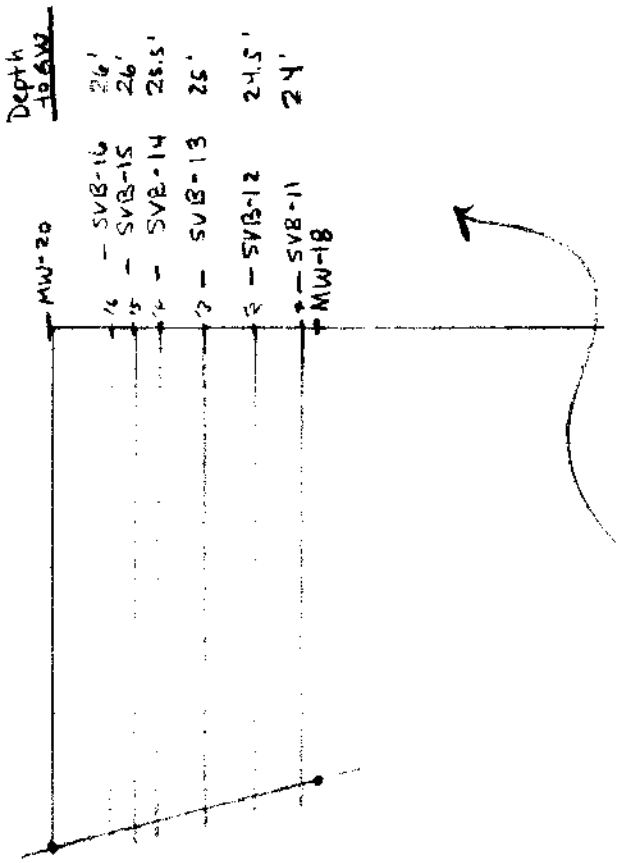
SHEET 2 OF 12

PROJECT AP Maryland Square — PROJECT NO. 26498724

SUBJECT Soil Vapor Assessment — BY L. Lowe — DATE 3-1-07

REVIEWED BY _____ — DATE _____





Depth to GW	
SVB-1	11.5'
SVB-2	11.5'
SVB-3	11.5'
SVB-4	11.5
SVB-5 - SVB 10	14' bgs
SVB-11 - SVB-16	

3-1-07

URS

SHEET 3 OF 12

PROJECT AP- Maryland Square — PROJECT NO. 26698724

SUBJECT Soil Vapor Assessment — BY USALowe — DATE ~~to-2-07~~ 3-5-07

REVIEWED BY _____ DATE _____

1400 Gathered supplies for soil vapor assessment-

* 6 soil samples for geotechnical characterization
  - Eagle Drilling will provide sample tubes & rings
  - labels for soil samples.

* Shipping supplies
  - Chains-of-custody
  - boxes for shipment
  - directions for closest Fed Ex (shipment by 4:30pm)
  - peanuts
  - shipping labels
  - Pre-paid Fed Ex
  - packing tape

* Soil samples from drums for disposal
  - Sample jars
  - ice
  - sample labels
  - cooler

* Soil vapor samples
  - tedlar bags
  - 60 cc syringes
  - PID
  - Calibration gas for PID
  - Leak detection compound
  - paper towels
  - Drive rods w/ retractable tip
  - rotary drive hammer
  - Labels
  - 3-way valves
  - pre-cut 1/8" OD tubing (Nylon)

} Place in separate container away from sampling equipment.

* Paperwork
  - H & S plan
  - Borehole logs
  - Field notebook.
  - Work order for Eagle Drilling
  - Soil Vapor Assessment, URS, Jan 24, 2007
  - Safety Daily Safety task Analysis Worksheet.
  - Call Before You Dig
    2/28/07 called @ 1445 to extend • Ask that 046481 be remarked
    - Ottawa 046482 [Case by 3/16 to extend. Expires 3/20]
    - Boulevard Mall 046484 [" 3/16 " " 3/20]
    - Spencer Street 046481 [" " 3/16 " " 3/20]
  - Traffic control
  - Chart for purge volumes
  - Contact phone numbers

* Waste - Soil
  - URS provides drums - currently at MS site. Eagle will take full drums back to site.
  - Drum labels

3-5-07

URS

SHEET 4 OF 12

PROJECT AP-MS PROJECT NO. 26698724
SUBJECT Soil Vapor Assessment BY Lisa Lowe DATE ~~6-2-07~~ 3/5/07
REVIEWED BY _____ DATE _____

3/5/07 * PPE / H&S
- Steel toe boots
- nitrile gloves
- hard hats
- safety glasses
- DI water
- First Aid Kit
- Telephone
- orange vests
- ear plugs

* MISC
- * tool box with misc. tools
- * field camera
- Decon solution
- Cooler for food + drinking water
- trash bags
- Generator
- gas can

3/6/07

0600 Lisa arrived on site at the former AP facility at MS Loaded one 55-gal DOT-approved drum onto truck.

0615 Mobilized to Chevron at corner of Maryland Pkwy and Flamingo to purchase gas for generator

0627 Mobilized next ~~door~~ to Albertsons to purchase ice

0637 Mobilized to Spencer Street

0640 Arrived at drilling site ~~for~~ on Spencer Street. Scott Ball already at location when I arrived. Lisa and Scott walked down Spencer street and made note of utilities, specifically gas line which was marked. No other utilities had been marked, however, the presence of a cover for the sewer, covers for water, water meters in residential properties, and fire hydrants were noted. Water line appears to run down middle of street (North bound on Spencer). Sewer runs along length of street just east of center. Gas lines are well marked. Telephone + power line are over-head in median.

Lisa Lowe 3-5-07

URS

PROJECT AP- Maryland Square PROJECT NO. 26698724 SHEET 5 OF 12
SUBJECT Soil Vapor Assessment BY Lisa Lowe DATE 3-6-07
REVIEWED BY _____ DATE _____

3/6/07

0655 Lisa mobilized to intersection of Algonquin and Ottawa to wait for drillers.

0701 Received a call from drillers. They are at former facility and will mobilize on to Spencer Street.
Lisa mobilized to Spencer Street.

0720 Drillers arrive at Spencer Street site. Holly Woodward (URS) and James (JD) Dotchin (NDEP), Scott Ball (URS), Lisa Lowe (URS) Roderick Easton (Eagle Drilling), and Edwin Gacusan (Eagle Drilling) are all on site.

0730 Lisa and Scott lead H_2S tailgate meeting. Pointed out sewer, gas, & water lines. Talked about hazards - trips & traffic being main concerns. Signed sheet.

0745 At first borehole (SVB-01) located near the NEC of Ottawa Drive and Spencer Street (north-bound)
Started drilling with track-mounted auger rig. Drilled to 4'.
Drill Rig: D-50 (Deitrich-50) Turbo. Auger using 5'-sections, 6"-bit.

~0800 → Ron Solis from Secor arrived on site.

0815 Ready to take sample at 5-foot depth. (Used soil vapor sampling kit to drive rods to 5').

Drillers do not have bentonite for slurry to pour in borehole to seal sample rods from ambient air.
Eagle Drilling representative departed site to get bentonite and water from Eagle office.

0904 Eagle rep arrived with bentonite and water. Mixed ~ 1/3 bag bentonite. Poured into borehole to give sample rods 1-2 foot deep seal. Place paper towel saturated with leak-check compound ~ 1ft from sampling location

0910 Obtained sample SVB-01-05. Ron took duplicate sample for NDEP/SECOR.

0925 5-foot section of auger added to drill rig. Drilled to 10 ft. Drove sample rods to 12 ft. Very difficult

LSB 3-6-07

to drive rods - soil very solid. 1-2ft bentonite slurry added to borehole for seal.

0940 → Attempted to ~~sat~~ take sample. Vapor lock on syringe. Can only pull 10cc air. Due to risk of encountering groundwater, which is estimated to be 14 ft, decided to skip this sample and move on to next borehole.

1000 Jeff Palmer of Secor arrived on site. JD departed site.

1005 Mobilized north along Spencer Street ~66 ft to SVB-02. Drilled to ~~4~~ ~3.5 ft. Drove sample rod to ~4.5 ft. Added bentonite. Sample rods ~~are un~~ or threads are stripped ∴ head will not stay

1021 screwed on. Took sample at ~4 ft. Used leak-test compound ~1ft from sampling area. Drilled to ~~8~~ 8.5 ft. Added 1-2 ft bentonite slurry. Encountered a lot of gravel at ~8.5'. Drove sample rods to ~10 ft.

1048 Took sample SVB-02-10

1100 Mobilized ~66 ft north along Spencer street to SVB-03.

1110 Jeff Palmer Departed from site.

1117 Began drilling. Drilled to 4'. Drove sample rods to 5'. Added 1-2ft bentonite slurry to mixture. Place leak test comp ~1 foot from sample area

1127 Sampled SVB-03-05
Continued drilling to 9'. Drove sample rods to 12'. Added 1-2 ft bentonite slurry. Place paper towel saturated w/ leak test comp. within 1 foot of sampling area.

1147 Sampled SVB-03-12

1150 Scott departed from site. I am to call him before we start drilling @ SVB-05
Moved to SVB-04

1200 Began drilling SVB-04.

1206 Stopped drilling for break. Ron and Holly departed from site to pick up lunch. Rod, Ed, and Lisa took quick lunch break on site.

1226 Returned to drilling. Drilled to 4'. Drove sample

rods to 5'. Added 1-2ft bentonite slurry to borehole. Placed leak-check cmpd ~1 ft from sampling location.

1235 Collected SVB-04-05.
Drilled to 10'. Drove sample rods to 12'. Added 1-2ft bentonite slurry. Placed leak-check compound.

1252 Collected SVB-04-12

1255 Ron and Holly arrived back on site.

~~1259~~ 1301 Moved to SVB-05
Lisa and Holly moved truck on up to SVB-05 while Ron stayed back with drillers to back-fill borehole.
This was first borehole in the vicinity of ~~sewer~~ gas lines. Appearance of ~2-ft wide trench where work previously done on gas lines. Trench width from curb and extends ~~east~~ west into street. Measured 1' from west side of trench line to determine spot to drill. Placed rocks on spot so I could view where sewer line runs in comparison to drill location.
Started preparing rods for sampling with Holly's help. Ron arrived at SVB-05 and helped with assembly of rods.

~1310 Noticed drillers had arrived and were already drilling. As I walked to back of truck so I could view what was going on with drilling. As I reached rear of truck gas began spewing from borehole. Immediately noticed driller had started drilling directly on top of ~~sewer~~ gas line. I ordered evacuation of area and to dial 911. Ron, Holly, and Rod immediately called 911 as evacuating from site.

Lisa 3-6-07

URS

PROJECT AP-MS
SUBJECT SVA

SHEET 8 OF 12
PROJECT NO. 26698724
BY Lisa Lowe DATE 3-6-07
REVIEWED BY _____ DATE _____

1316 I called Scott to notify him that gas line had been hit.

1330 - 1500

Fire trucks arrived on site.

Southwest Gas arrived on site

All but 1 Fire truck departed site once SWG began to contain / slow the flow of gas leak.

Scott Ball arrived on site.

Jeff Palmer arrived on site.

JD (NDEP) arrived on site.

Scott spoke to Victor Cline of Eagle Drilling on the phone.

Scott and I met with Michael Crumble of SWG to discuss sequence of events.

Along with Michael (SWG) Scott and Lisa marked locations of SVB-05 and SVB-06.

Lisa met Michael at Algonquin/Ottawa to mark SVB-7 through SVB-10.

1530 Lisa mobilized to Kinko's / Fed Ex to mail samples.

1600 Lisa departed site for the day.

Lisa Lowe 3607

URS

SHEET 9 OF 12

PROJECT AP Maryland Square — PROJECT NO. 26698724

SUBJECT Soil Vapor Assessment — BY Lisa Love — DATE 3-7-06

REVIEWED BY _____ — DATE _____

0600 Stopped at Chevron on E. Desert Inn Rd. to buy ice and pens.

0612 Drove through Boulevard Mall to check that ~~"Catt"~~ USA utilities had been marked. White, dashed lines in some areas that appear to be related to sprinkler system. Holly had previously seen (within past 3 weeks) people working on irrigation system at that location.

0614 Arrived at Spencer Street.
Asphalt from SVB-01 through SVB-04 ~~ccct~~ is not dry.
Set up traffic cones.

0642 Scott Ball arrived on site.

0650 Victor Cline and drillers - Ed + Rod arrived
Victor + Scott discussed placement of boreholes. Plan to use air knife. Drillers are going to core through asphalt only for air knife use

0700 Scott mobilized to Algonquin / Ottawa intersection

0703 Ed + Rod setting up track-mounted auger rig.

0706 Ron Solis arrived on site

0707 Holly Woodward arrived on site.

0712 Drilled through asphalt at SVB-06

0713 Holly mobilized to Algonquin / Ottawa

0718 Drilled through asphalt at SVB-05

0721 Rod loaded rig onto trailer
Victor mobilized on foot to Algonquin / Ottawa

0724 Lisa mobilized to Algonquin / Ottawa

0732 At west dead-end off Ottawa where intersects with Algonquin
H+S tailgate meeting

0747 Drill rig in place

0809 Collected sample SVB-07-05

0810 GES rep arrived. Tom ~~or Bob~~ USA Thompson (234-1701)

0815 Took break from drilling for GES to meet with Eagle Drilling crew (Rod + Ed)

0828 ~~Took~~ USA Collected Field Blank (Trip Blank) from SVB-07 job site.

0840 JD (NDEP) arrived on site.

[signature] 3-7-07

URS

SHEET 10 OF 12

PROJECT AP-MS PROJECT NO. 26698724

SUBJECT SVA BY Lisa Lowe DATE 3-7-07

REVIEWED BY _____ DATE _____

0900 John Wong (SWG) arrived on site.

0910 Driller removing auger from SVB-07.

0915 Mob to SVB-08

0924 Began Drilling

0932 Soil sample SVB-08-03T
SVB-08-03R

0935 Drillers do not have end caps. Ed departed site to obtain end caps

1001 Ed + Rod ~~arrived~~ returned to site

1007 Collected SVB-08-05

1015 Continued drilling

1039 Sampled SVB-08-09

1042 " SVB-08-99 (Duplicate)

1046 JD + Ron Departed from site

1050 Ed and Juan arrived on site

1058 Juan departed site

1059 Rod mob drill to SVB-09.

1102 Began drilling

1108 Collected soil from 0.5' to 3' for bulk sample SVB-09-0.5 to 3

1113 Collected Soil sample SVB-09-03T and SVB-09-03R

1125 Collected SVB-09-05

1140 Collected bulk soil sample SVB-09-07 from 7-8'

1142 Collected soil samples SVB-09-08T & SVB-09-08R

1203 Collected SVB-09-10

1212 Mob drill rig across Algonquin to SVB-10

1221 Began drilling

1234 Collected SVB-10-05

1250 Collected SVB-10-10

1310 Holly departed site.

Lisa Bte 3-7-07

URS

SHEET 11 OF 12

PROJECT AP-MS — PROJECT NO. 26698724
SUBJECT SVA — BY Lisa Lowe — DATE 3-7-07
REVIEWED BY — DATE

1320 Lisa and Rod mobilized to Spencer St SVB-05. Air knife was used to clear utilities and borehole excavated to 5' 7".
1344 Soil sample collected SVB-05-5.5
1401 Collected SVB-05-08
1405 Collected SVB-05-98 (Duplicate)
Drilled to 10 Ft
1417 Collected Soil sample SVB-05-10
1425 Scott arrived
1435 Collected SVB-05-13
1440 Scott departed
1445 JD arrived
1450 Jeff Palmer and Gracie Gillespie arrived
1454 At SVB-06
Depth to bottom = 5' 4" after airknife cleared hole
1504 Collected SVB-06-08
1523 Collected SVB-06-12
1548 Holly departed to Fed Ex to drop off samples
1549 Called Traffic Control — Toni Call off # LV 290719
1601 Ron left site
1607 Gracie + Jeff left site
1608 Rod left Ste
1610 Ed left site
1618 JD left site
1619 Pulled traffic cones to curb @ Spencer. Mob to Ottawa
1622 Pulled traffic cones to curb @ Ottawa.
1626 Departed site for the day

Lisa Bl 3-7-07

URS

PROJECT AP-MS SHEET 12 OF 12
SUBJECT SVA PROJECT NO. 26698724
BY Lisa Lowe DATE 3-8-07
REVIEWED BY _____ DATE _____

0800 Arrived @ former Al Phillips facility at Maryland Square. Soil drums from SVA had not been dropped off at this site as requested in the work plan. Mobilized to SVA area on mall property. Took picture of utility markings.

Mobilized to Ottawa site. Traffic Control had picked up cones and site was clean. Took pictures of each borehole location.

Mobilized to Spencer Street. Traffic control had picked up cones and site was clean. Took pictures of each borehole location.

0826 Mobilized to URS office. Stopped to refuel on the way.

0900 Spoke to Scott about incident report and began working on report.

~1200 Holly called Victor Cline at Eagle Drilling to notify that drums had not been left on site.

1230 Spoke to Louise at H+P. All Soil Vapor Samples have been received. Confirmed 48-hr Turn-around Time.

3-8-07

URS

SHEET 1 OF 2

PROJECT Al Phillips MS. PROJECT NO. 26698724

SUBJECT Soil Vapor sampling @ Mall BY S. Ball DATE 3-19-07

REVIEWED BY _____ DATE _____

S. Matt Ball

0600 Arrived @ office to pack up truck
0630 Left office to head to field. Holly arrived @ office
0648 Got water for field
0700 Drillers and NDEP arrived on site, Holly arrived.
0705 Set up at Borehole SVB-16. Held H&S meeting and every one signed H&S form
0716 Stanted drilling @ SVB-16
0742 Collected soil vapor sample @ 5' bgs in SVB-16-5
0805 Collected soil vapor sample @ 10' bgs in SVB-16-10
0820 Another driller arrived with Bentonite Plug for boreholes
0832 Collected soil vapor samples @ 20.5' bgs in SVB-16-20.6
0849 Driller began to pull up from SVB borehole
Backfilled w 5.5 bags of bentonite
0913 Began drilling @ SVB-15, vapor samples were not able to be collected @ 5 and 10' bgs, trying to collect sample @ 15' bgs
1000 Sample collected @ 15' in SVB-15 @ 15'
1022 Soil vapor sample collected @ 20' in SVB-15.
1035 Driller pulling out borehole SVB-15 to SBV-14
Backfilled w 5.5 bags of Bentonite
1051 Moved rig to SVB-14
1104 Unable to collect soil vapor @ 5' bgs. Point was driven deep enough but unable to draw any soil vapor. Bentonite placed on top of sampling lined after tip driven. Driller going to 10' bgs.
1113 Driller @ 10' bgs in SVB-14
1121 reached 10' bgs and ready to vapor sample.
1122 Collected sample @ 10' bgs SVB-14.
1153 Collected soil vapor sample @ 20' bgs in SVB-14
1223 Driller moved to borehole location SVB-13 - last hole for the day. Will do last two holes tomarrow.
Backfilled borehole w 5 bags of bentonite (SVB-14)
1227 Began drilling @ SVB-13
1238 Collected soil vapor sample @ 5' bgs at SVB-13
Collecting soil samples @ this borehole and duplicate vapor sample.

URS

SHEET 2 OF 2

PROJECT Al Phillips Soil Vapor PROJECT NO. 26698724

SUBJECT Maryland Square BY S Ball DATE 3-19-07

@ Mall REVIEWED BY _____ DATE _____

1225 Secor rep. left site and said he'd be back tomorrow when we drill last two boreholes.

1254 Collected soil samples @ 5' bgs @ SVB-13-8

1308 Collected soil vapor sample and duplicat sample from SVB-13-10.5' bgs

1325 Collected two soil samples from SVB-13

1343 Collected soil vapor sample from 20' bgs in SVB-13

1349 Sampling completed for the day.
Borehole SVB-13 backfilled with 5 bags bentonite.
- Holly is finishing equip. take down and filling in COC.
- Driller cleaning up drill rig area and packing up equip. Other driller went back to concrete in the boreholes. Driller also spray washed off the road area.
- Holly labeled drums of soil so they could be taken by the driller to the Maryland Square site.

1436 Holly off site to go back to office and then take vapor samples to Fedex for shipment to analytical lab (H&P).
- Drillers had finished filling in boreholes with concrete and moving soil drums to be collected and moved to the Maryland Square site. I stayed at site for a while to make sure concrete was hard before leaving site.

1525 Drillers took the drums to the Maryland Square site

1536 One driller is back to pick up the rest of the equip.

1543 Driller off site. I stayed till concrete was hard on boreholes.

1548 Left site.

Stu Ball

URS

SHEET 1 OF 1

PROJECT Al Phillips Maryland Sy. PROJECT NO. 26698724

SUBJECT Soil Vapor sampling @ Mall. BY S Ball DATE 3-20-07

REVIEWED BY _____ DATE _____

0645 S.Ball on site. set up cones to get area blocked off
0652 Driller arrived on site.
0700 Held H&S meeting with drillers and NDEP.
0708 Driller set up on borehole SVB-12
0715 Began drilling @ SVB-12
0723 collected soil vapor sample @ 5'bgs in SVB-12.
0808 Drilled to bottom of SVB-~~2~~12 and got vapor lock on the sampler. pulling out of this hole and will go to next sample location SVB-11.
0810 Drilling folding up to move. Holly cleaning equip and moving to next borehole.
0830 Driller and URS moved to next and last location. Mang and finishing minor pickup at SVB-12
0838 Began drilling @ SVB-11
0852 Not able to collect soil vapor sample @ 8'bgs in SVB-11 Secor arrived on site.
0905 Collected sample @ 10'bgs in SVB-11 as well as duplicate vapor sample. Secor took one duplicat as well.
0926 Collected soil vapor sample @ 15'bgs in SVB-11. stoped drilling to avoid encountering groundwater. Began to cleanup and leave site.
0956 Both NDEP and Secor off site. Driller completing backfill of boreholes.
1005 Scott Ball left site. Holly remained to oversee drillers on borehole completion and cleanup.

Scott Ball

1020 Filled out COC's
1105 drillers finished. left site. Checked out - WALked over bore holes.
1106 left site w/ drillers to former Al Phillips site
1120 dropped off soil drums (drillers)
picked up soil sample for VOC analysis @ former site
1202 off site. holes dry

Holly Woodward

APPENDIX B – PHOTOGRAPHS OF FIELD ACTIVITIES

PHOTOGRAPHIC RECORD

Client Name:	Site Location: Off-site Soil Vapor Assessment at The Boulevard Mall and Residential Area	Project No.
Al Phillips The Cleaner		26698724

Photo No. 1

Location of Photo: Borehole SVB-11 on east side of the parking lot at The Boulevard Mall.

View Direction of Photo: Facing north.

Description:

Track-mounted hollow stem auger drill rig located at the east side of the parking lot on the east side of The Boulevard Mall. Shows marking of borehole location and 55-gallon DOT-approved drum for soil tailings prior to drilling of borehole. Residential area is located to the right in photo.

Photo No. 2

Location of Photo: Borehole SVB-16 on east side of the parking lot at The Boulevard Mall.

View Direction of Photo: Facing north.

Description:

Located at the east side of the parking lot on the east side of The Boulevard Mall. Shows utility markings by USA Locate, safety cones, URS company truck, and drillers equipment trailer. To the far north is a parking garage for The Boulevard Mall. Residential area is located to the right in photo.

PHOTOGRAPHIC RECORD

Client Name:	Site Location: Off-site Soil Vapor Assessment at The Boulevard Mall and Residential Area	Project No.
Al Phillips The Cleaner		26698724

Photo No. 3

Location of Photo:
Borehole SVB-14 on east side of the parking lot at The Boulevard Mall

View Direction of Photo:
Facing northeast.

Description:

Track-mounted hollow stem auger drill rig drilling soil vapor borehole. Assembled soil vapor drive rod with retractable probe and rotary drive hammer on ground on southwest side of URS company truck. Residential area in background.

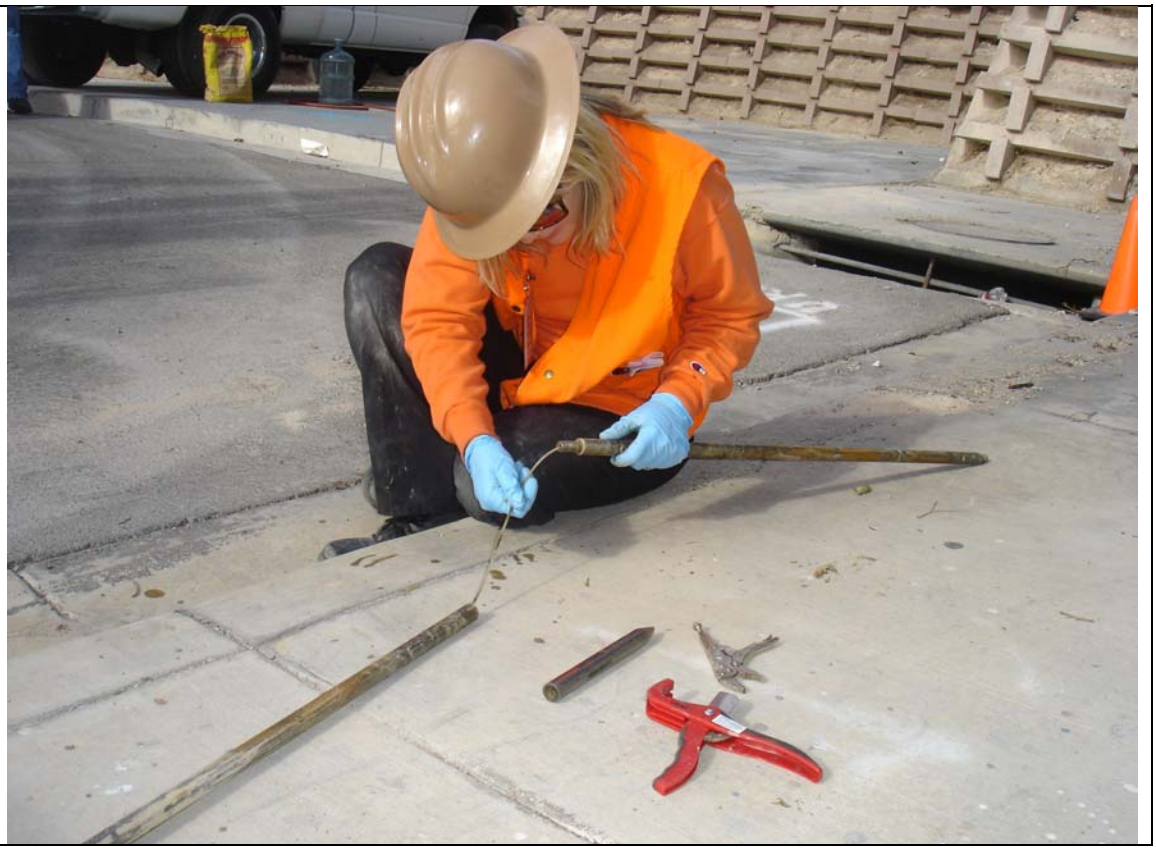
Photo No. 4

Location of Photo:
Borehole SVB-07 at west end of Ottawa Drive.

View Direction of Photo:
Facing southwest.

Description:

Assembling soil vapor drive rod with retractable probe.



PHOTOGRAPHIC RECORD

Client Name:	Site Location: Off-site Soil Vapor Assessment at The Boulevard Mall and Residential Area	Project No.
Al Phillips The Cleaner		26698724

Photo No. 5

Location of Photo: Borehole SVB-06 located on northbound Spencer Street.

View Direction of Photo: Facing south.

Description:

Hollow stem auger disengaged from track-mounted drill rig. Soil vapor drive rod with retractable probe is inserted into hollow stem of auger and driven into soil using a rotary drive hammer. Bentonite slurry seal is in bucket.

Photo No. 6

Location of Photo: Borehole SVB-02 located on northbound Spencer Street.

View Direction of Photo: Facing southwest.

Description:

Soil vapor drive rod located inside hollow stem of auger. Drillers are pouring 1 to 2-feet of bentonite slurry into hollow stem of auger to form a seal around drive rod at soil surface inside hollow stem of auger.

PHOTOGRAPHIC RECORD

Client Name:	Site Location: Off-site Soil Vapor Assessment at The Boulevard Mall and Residential Area	Project No.
Al Phillips The Cleaner		26698724

Photo No. 7

Location of Photo:
Borehole SVB-09 located on Ottawa Drive.

View Direction of Photo:
Facing the ground.

Description:

The disposable 60-cc sampling syringe and tedlar soil vapor sample bag are attached to the disposable sample tubing via a 3-way valve to minimize the risk of introducing ambient air into the tedlar sample bag.

Photo No. 8

Location of Photo:
Borehole SVB-14 on east side of the parking lot at The Boulevard Mall

View Direction of Photo:
Facing northwest.

Description:

Soil vapor sample is being collected from Borehole SVB-14 by URS.

PHOTOGRAPHIC RECORD

Client Name:	Site Location: Off-site Soil Vapor Assessment at The Boulevard Mall and Residential Area	Project No.
Al Phillips The Cleaner		26698724

Photo No. 9

Location of Photo: Borehole SVB-14 on east side of the parking lot at The Boulevard Mall

View Direction of Photo: Facing down.

Description:

Soil vapor samples are placed in cardboard box to protect samples from direct sunlight prior to arrival at the analytical laboratory.

Photo No. 10

Location of Photo: Borehole SVB-08 located at the west end of Ottawa Drive.

View Direction of Photo: Facing east.

Description:

Drillers are cleaning drilling site and preparing soil vapor borehole to be backfilled with hydrated bentonite pellets and concrete surface seal. Track-mounted drill rig is being prepared to advance to location of successive soil vapor borehole.

APPENDIX C – CHAIN-OF-CUSTODY FORMS AND ANALYITICAL RESULTS

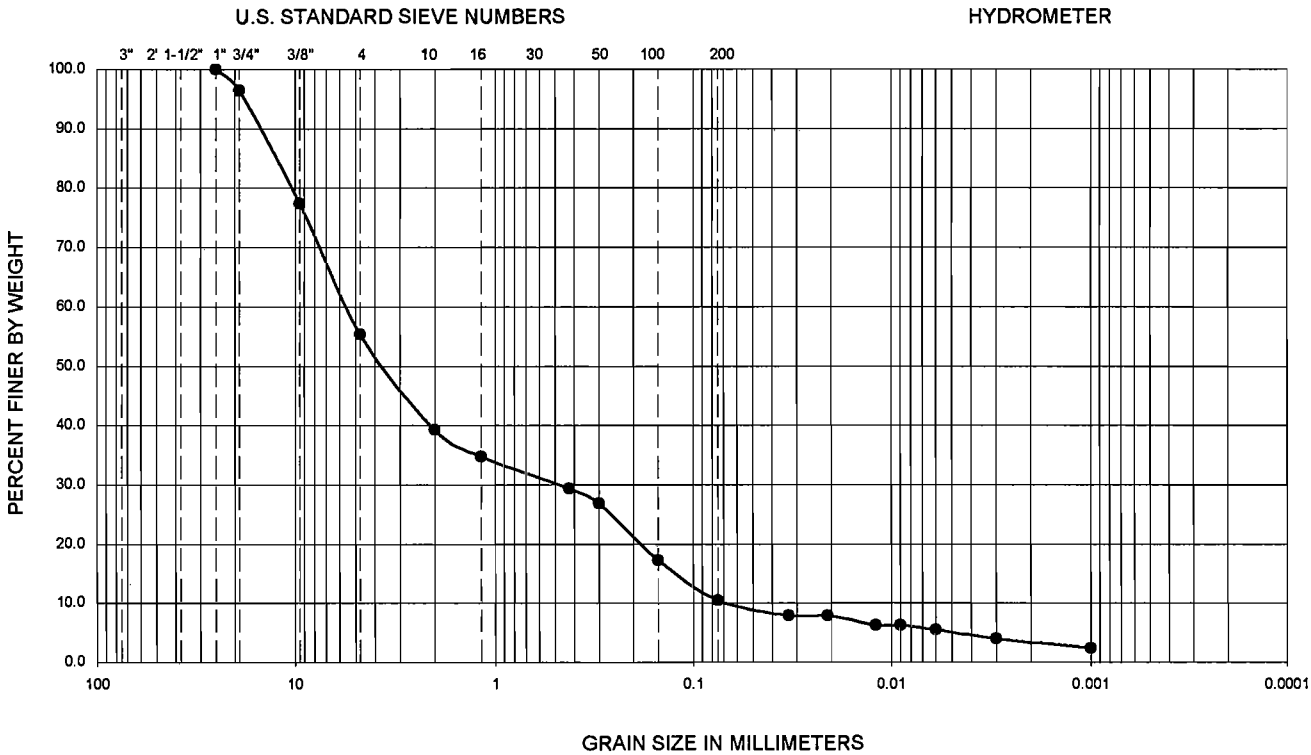
Ninyo & Moore

MOISTURE - DENSITY TEST DATA
(ASTM D 2937-04)

Project Name:	URS	Project No.:	302009001	Technician:	BSS	Date:	04/07

	Sample Location	SUB-05	SUB-05	SUB-09	SUB-09							
	Sample Depth (ft)	5.5	10	3	8							
Visual Soil Classification	Top	SC	CL	CL	GM							
	Bottom	SC	CL	CL	GM							
	Torvane Shear (tsf)											
	Pocket Penetrometer (tsf)											
WEIGHTS	Weight of Moist Soil + Rings (g)	505.5	801.7	1056.6	927.8							
	Number of Rings	3	5	6	5							
	Weight of Rings (g)	123.7	200.4	248.7	209.6							
	Weight of Moist Soil (g)	381.8	601.3	807.9	718.2							
	Dish Number	75	33	DRK	76							
	Weight of Moist Soil + Tare (g)	574.6	803.4	1023.3	937.3							
	Weight of Dry Soil + Tare (g)	538.7	606.4	923.0	908.0							
	Weight of Tare (g)	199.6	205.6	222.4	222.4							
RESULTS	Wet Density (pcf)	105.4	99.6	111.5	119.0							
	Moisture Content (%)	10.6	49.2	14.3	4.3							
	Dry Density (pcf)	95.3	66.8	97.6	114.1							
	Degree of Saturation (%)	38.2	88.3	54.7	25.2							
	Remarks											

GRAVEL		SAND			FINES	
Coarse	Fine	Coarse	Medium	Fine	SILT	CLAY

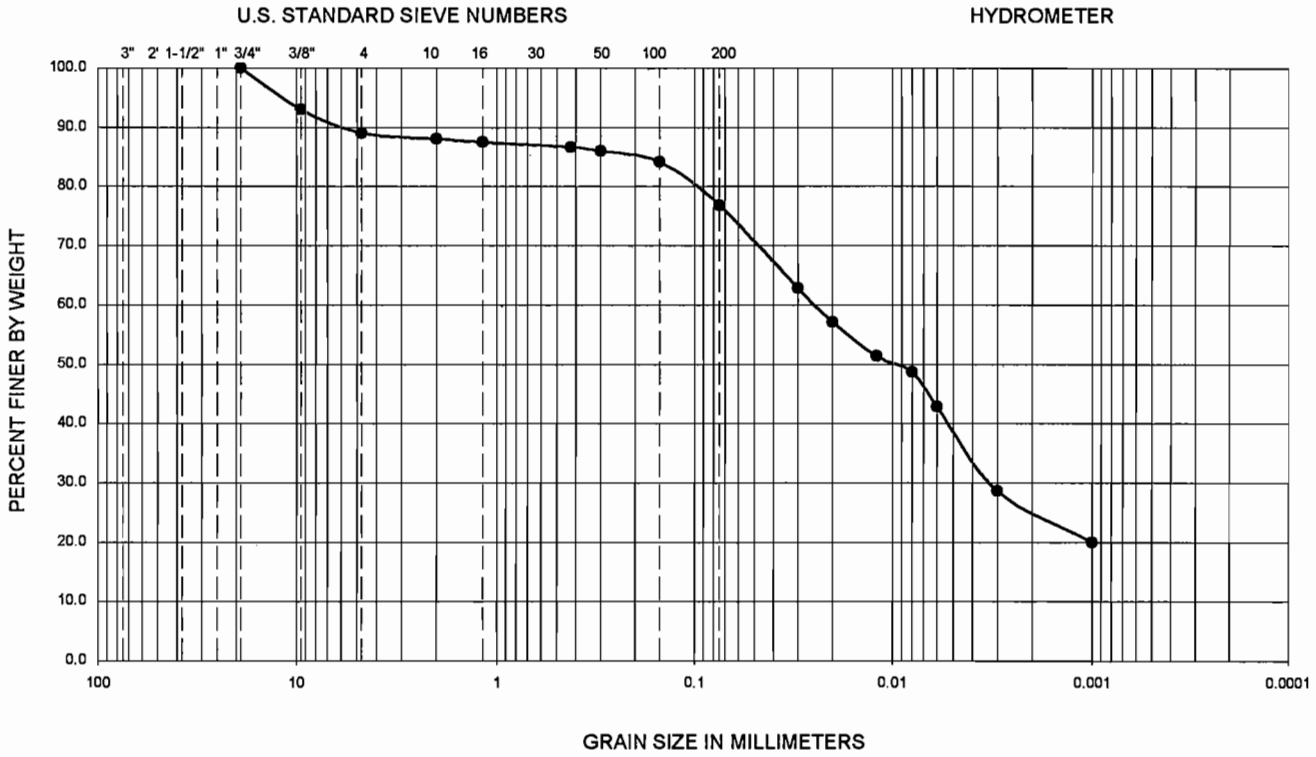


Symbol	Sample Location	Depth (ft)	Liquid Limit	Plastic Limit	Plasticity Index	D_{10}	D_{30}	D_{60}	C_u	C_c	Passing No. 200 (%)	U.S.C.S
●	SUB-09-08		--	--	--	--	--	--	--	--	11	GM

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 422-63 (02)

Ninyo & Moore	GRADATION TEST RESULTS	FIGURE
PROJECT NO.	DATE	URS
302009001	4/07	LV, NV

GRAVEL		SAND			FINES	
Coarse	Fine	Coarse	Medium	Fine	SILT	CLAY

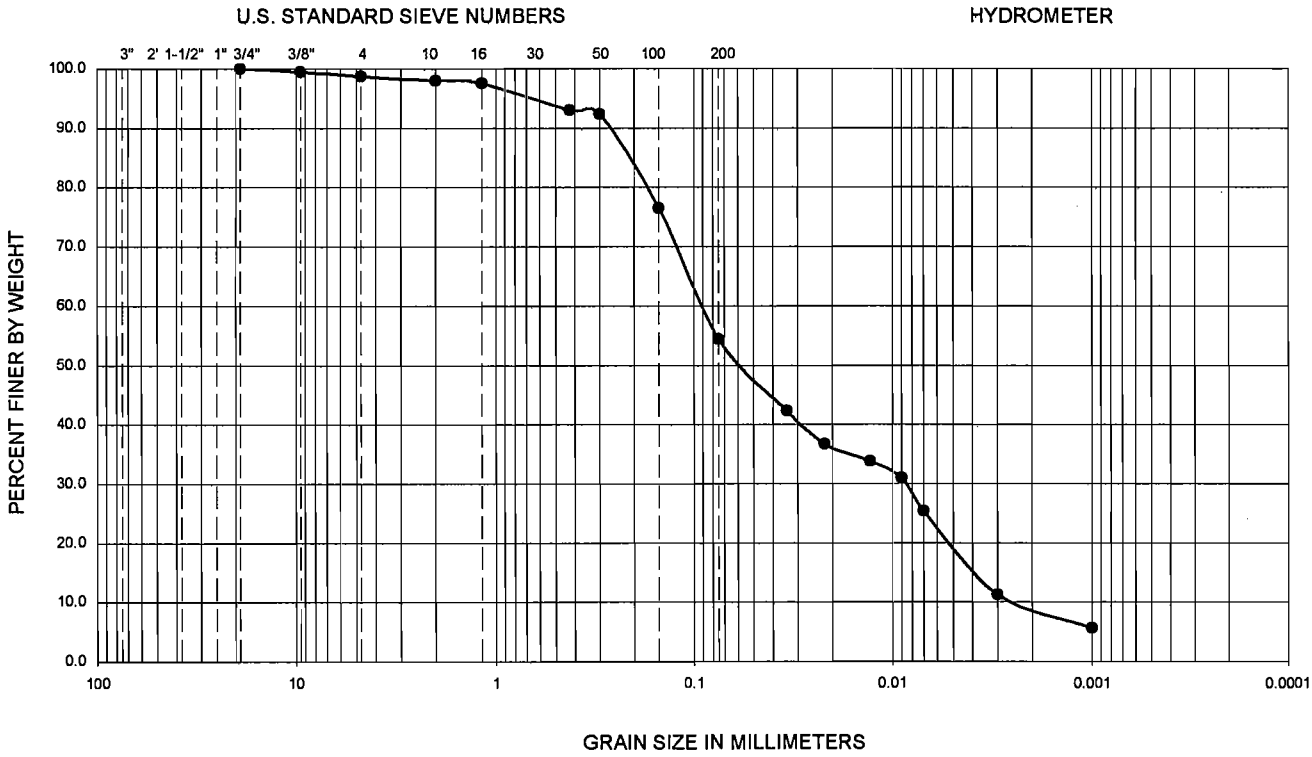


Symbol	Sample Location	Depth (ft)	Liquid Limit	Plastic Limit	Plasticity Index	D_{10}	D_{30}	D_{60}	C_u	C_c	Passing No. 200 (%)	U.S.C.S
●	SUB-05-10		--	--	--	--	--	--	--	--	77	CL

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 422-63 (02)

Ninyo & Moore	GRADATION TEST RESULTS	FIGURE
PROJECT NO.	DATE	URS
302009001	4/07	LV, NV

GRAVEL		SAND			FINES	
Coarse	Fine	Coarse	Medium	Fine	SILT	CLAY

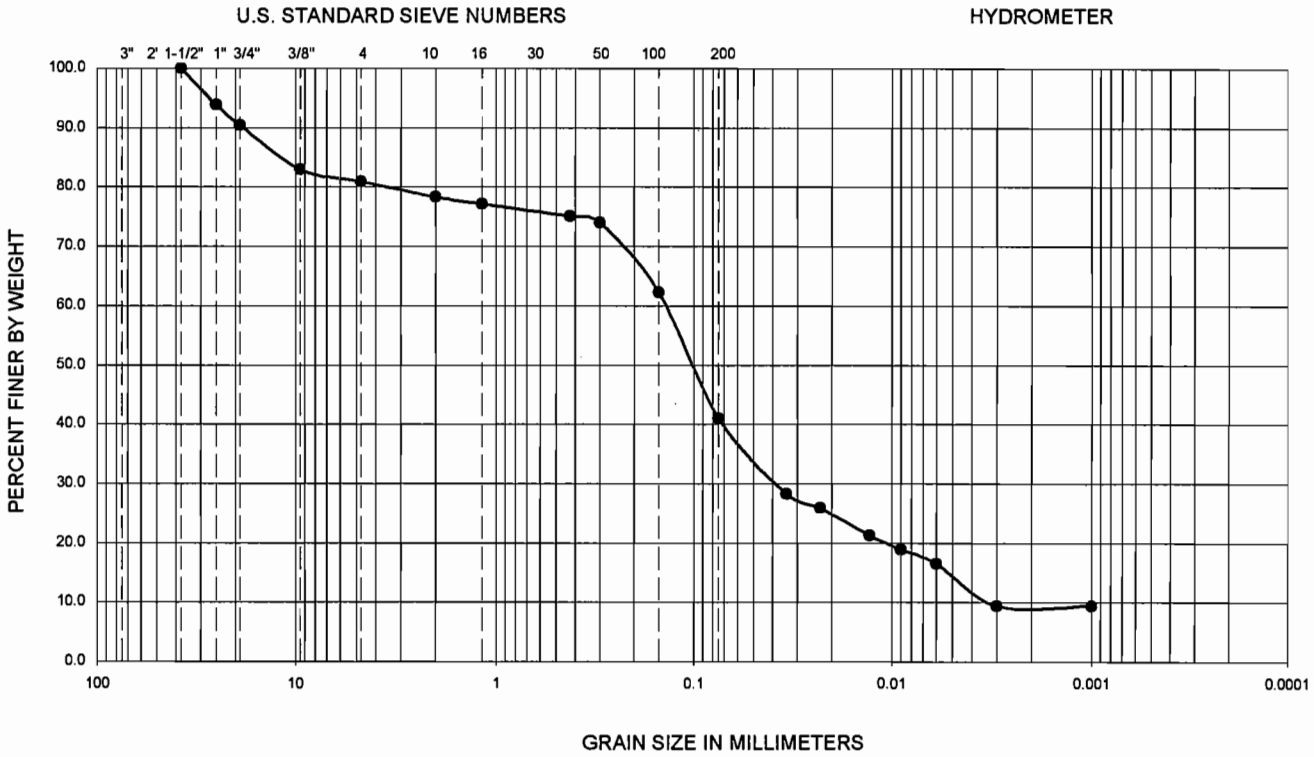


Symbol	Sample Location	Depth (ft)	Liquid Limit	Plastic Limit	Plasticity Index	D_{10}	D_{30}	D_{60}	C_u	C_c	Passing No. 200 (%)	U.S.C.S
●	SUB-09-03		--	--	--	--	--	--	--	--	54	CL

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 422-63 (02)

Ninyo & Moore	GRADATION TEST RESULTS	FIGURE
PROJECT NO.	DATE	URS
302009001	4/07	LV, NV

GRAVEL		SAND			FINES	
Coarse	Fine	Coarse	Medium	Fine	SILT	CLAY



Symbol	Sample Location	Depth (ft)	Liquid Limit	Plastic Limit	Plasticity Index	D_{10}	D_{30}	D_{60}	C_u	C_c	Passing No. 200 (%)	U.S.C.S
●	SUB-05-5.5		--	--	--	--	--	--	--	--	41	SC

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 422-63 (02)

Ninyo & Moore	GRADATION TEST RESULTS	FIGURE
PROJECT NO.	DATE	URS
302009001	4/07	LV, NV

302009001 HY SUB-05-5.5.xls

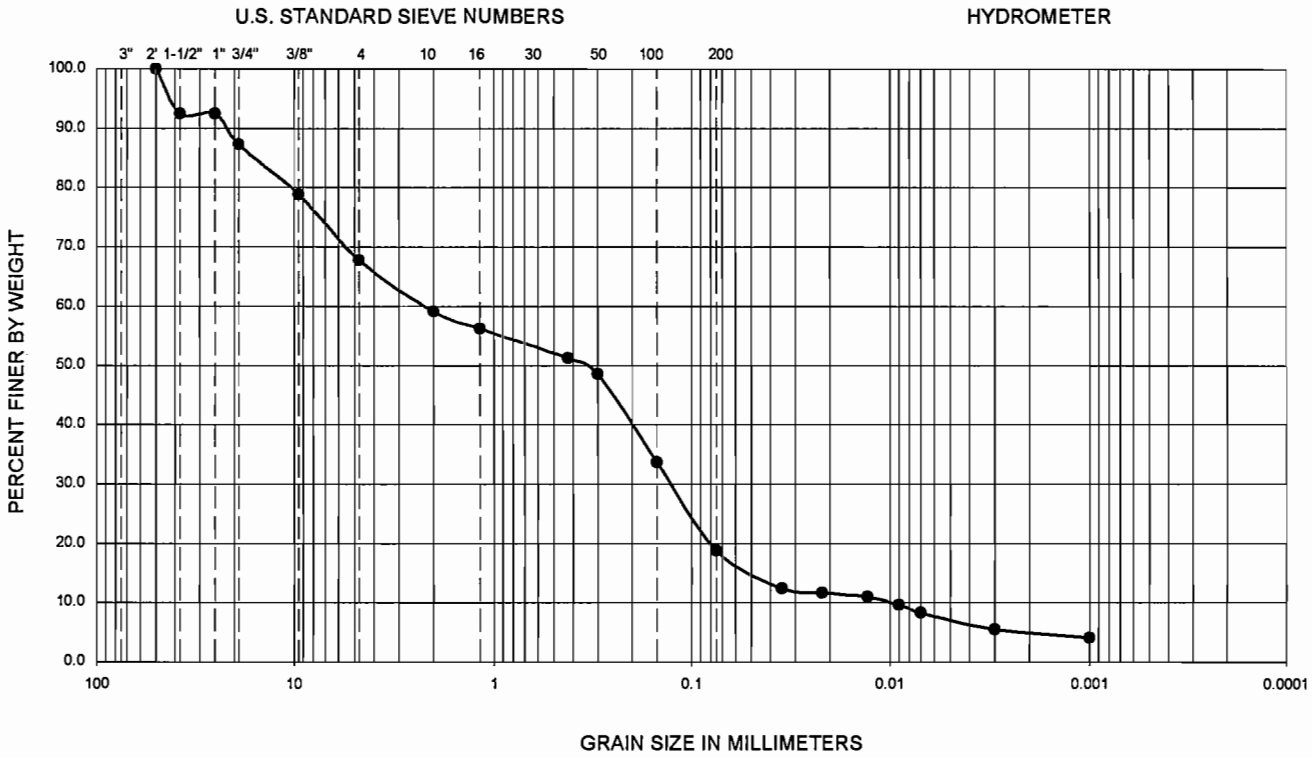
Ninyo & Moore

MOISTURE - DENSITY TEST DATA
(ASTM D 2937-04)

Project Name:	URS	Project No.:	302009001	Technician:	BSS	Date:	04/07

Sample Location		SVB-13	SVB-13									
Sample Depth (ft)		8.8	18.5									
Visual Soil Classification	Top	SM	CL									
	Bottom	SM	SM									
Torvane Shear (tsf)												
Pocket Penetrometer (tsf)												
WEIGHTS	Weight of Moist Soil + Rings (g)	944.1	1066.8									
	Number of Rings	5	6									
	Weight of Rings (g)	228.5	276.2									
	Weight of Moist Soil (g)	715.6	790.6									
	Dish Number	20	203									
	Weight of Moist Soil + Tare (g)	1085.2	1122.6									
	Weight of Dry Soil + Tare (g)	1038.3	936.9									
	Weight of Tare (g)	348.1	339.2									
RESULTS	Wet Density (pcf)	118.5	109.1									
	Moisture Content (%)	6.8	31.1									
	Dry Density (pcf)	111.0	83.3									
	Degree of Saturation (%)	36.8	83.6									
	Remarks											

GRAVEL		SAND			FINES	
Coarse	Fine	Coarse	Medium	Fine	SILT	CLAY

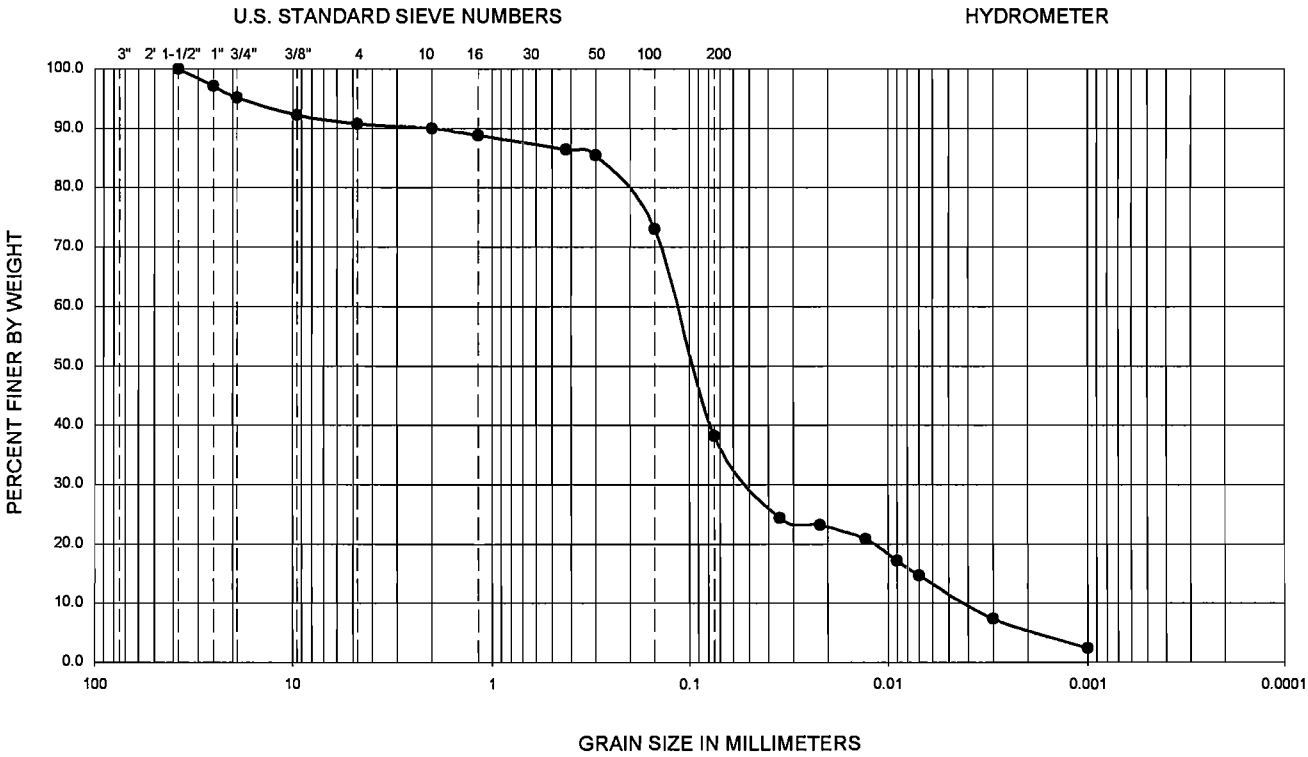


Symbol	Sample Location	Depth (ft)	Liquid Limit	Plastic Limit	Plasticity Index	D_{10}	D_{30}	D_{60}	C_u	C_c	Passing No. 200 (%)	U.S.C.S
●	SVB-13-8.5		--	--	--	--	--	--	--	--	19	SM

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 422-63 (02)

Ninyo & Moore	GRADATION TEST RESULTS	FIGURE
PROJECT NO.	DATE	URS
302009001	4/07	LV, NV

GRAVEL		SAND			FINES	
Coarse	Fine	Coarse	Medium	Fine	SILT	CLAY



Symbol	Sample Location	Depth (ft)	Liquid Limit	Plastic Limit	Plasticity Index	D_{10}	D_{30}	D_{60}	C_u	C_c	Passing No. 200 (%)	U.S.C.S
●	SVB-13-8.5		--	--	--	--	--	--	--	--	38	SC

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 422-63 (02)

Ninyo & Moore	GRADATION TEST RESULTS	FIGURE
PROJECT NO.	DATE	URS
302009001	4/07	LV, NV

Ninyo & Moore CHAIN OF CUSTODY RECORD

Date: 3.9.07 Page: 1 of 1

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(702) 433-0707 fax

Project Name: AP-MS.	**Project No.:** 26698724	**Laboratory Name:** Ninyo & Moore	**Laboratory Address** 6700 Paradise Road, Suite E Las Vegas, Nevada 89119
Client Name: L.R.S.	**Project Manager:** LISA LOWE	**Laboratory Phone:** (702) 433-0330	
Method:	**Fax Results to:** 492-9149.		
Sampler Name: LISA LOWE	**Sampler Signature:**		**Turnaround Time:**

Sample No.	Ninyo & Moore Lab ID #	Client Sample ID #	Sample Location /Depth/Road Surface Type	Sampling Date	Sampling Time	Matrix : (Soil, Asphalt, Mix, Aggregates)	Moisture Content	No. of Containers	Comments
1			SVB-05 - 5.5 R	3.7.07				1	TEST PER ATTACHED SPECS
2			" " " T					1	
3			SVB-09 - 03 R					1	
4			" " " T					1	
5			SVB-05 - 10 R					1	
6			" " " T					1	
7			SVB-09-08 R					1	
8			" " " T					1	
9									
10									

Relinquished by: (Signature)	Date & Time	Received by: (Signature)	Date & Time:
	3.9.07 3.25pm		3.9.07 3.25pm.

Ninyo & Moore CHAIN OF CUSTODY RECORD

Date: 3-19-07 Page: 1 of 1

6700 Paradise Road, Suite E
Las Vegas, Nevada 89119
(702) 433-0330 phone
(702) 433-0707 fax

Project Name: AP-MS	**Project No.:** 266988724	**Laboratory Name:** Ninyo & Moore	**Laboratory Address**
Client Name: URS	**Project Manager:** Scott Ball	**Laboratory Phone:** (702) 433-0330	6700 Paradise Road, Suite E Las Vegas, Nevada 89119
Method:	**Fax Results to:** 702-492-9149		
Sampler Name: Holly Woodward	**Sampler Signature:** Holly Woodward		**Turnaround Time:**

Sample No.	Ninyo & Moore Lab ID #	Client Sample ID #	Sample Location /Depth/Road Surface Type	Sampling Date	Sampling Time	Matrix: (Soil, Asphalt, Mix, Aggregates)	Moisture Content	No. of Containers	Comments
1			SVB 13-8.5 T	3/19/07	1254	D 422			Test per att specs
2			SVB-13-8.5-R	↓	1254				
3			SVB-13-18.5 T		1325	D 2216			
4			SVB-13-18.5 R	↓	1325				
5						D 2937			
6									
7						D 854			
8									
9									
10									

Relinquished by: (Signature)	Date & Time	Received by: (Signature)	Date & Time:
Holly Woodward	3-19-07 420pm	N+M	3-19-07 4:20 pm

MOBILE GEOCHEMISTRY

H&P

14 March 2007

Ms. Lisa Lowe
URS - Las Vegas
811 Grier Dr.
Las Vegas, NV 89119

RE: UR030707-10

Enclosed are the results of analyses for samples received by the laboratory on 07-Mar-07 . If you have any questions concerning this report, please feel free to contact me.

Sincerely,

J Villarreal

Janis Villarreal
Laboratory Director

H&P Mobile Geochemistry operates under CA Environmental Lab Accreditation Program Numbers 1317, 1561, 1667, 1745, 1746, 2088, 2278, 2543, 2579 and 2595.

2470 Impala Drive, Carlsbad, California 92010 | 760.804.9678 — Fax 760.804.9159
3825 Industry Avenue, Lakewood, California 90712 | 562.426.6991 — Fax 562.426.6995
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MOBILE GEOCHEMISTRY

H&P

URS - Las Vegas	Project: UR030707-10	
811 Grier Dr.	Project Number: 26698724 / Maryland Square Al Phillips	Reported:
Las Vegas, NV 89119	Project Manager: Ms. Lisa Lowe	14-Mar-07

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Trip Blank	E703019-01	Vapor	06-Mar-07	07-Mar-07
SVB-01-05, P400cc	E703019-02	Vapor	06-Mar-07	07-Mar-07
SVB-02-04, P400cc	E703019-03	Vapor	06-Mar-07	07-Mar-07
SVB-02-10, P400cc	E703019-04	Vapor	06-Mar-07	07-Mar-07
SVB-03-05, P400cc	E703019-05	Vapor	06-Mar-07	07-Mar-07
SVB-03-12, P400cc	E703019-06	Vapor	06-Mar-07	07-Mar-07
SVB-04-05, P400cc	E703019-07	Vapor	06-Mar-07	07-Mar-07
SVB-04-12, P400cc	E703019-08	Vapor	06-Mar-07	07-Mar-07

MOBILE GEOCHEMISTRY

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URS - Las Vegas	Project: UR030707-10	
811 Grier Dr.	Project Number: 26698724 / Maryland Square Al Phillips	Reported:
Las Vegas, NV 89119	Project Manager: Ms. Lisa Lowe	14-Mar-07

Volatile Organic Compounds by EPA Method 8260B

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
Trip Blank (E703019-01) Vapor	**Sampled: 06-Mar-07**	**Received: 07-Mar-07**							
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.05	EC70705	07-Mar-07	07-Mar-07	EPA 8260B	
Dichlorodifluoromethane	ND	0.5	"	"	"	"	"	"	
Vinyl chloride	ND	0.1	"	"	"	"	"	"	
Chloroethane	ND	0.5	"	"	"	"	"	"	
Trichlorofluoromethane	ND	0.5	"	"	"	"	"	"	
Methylene chloride	ND	0.5	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.5	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.5	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.5	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.5	"	"	"	"	"	"	
Chloroform	ND	0.1	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.5	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.1	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.1	"	"	"	"	"	"	
Benzene	0.1	0.1	"	"	"	"	"	"	B
Trichloroethene	ND	0.5	"	"	"	"	"	"	
Toluene	ND	1.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.5	"	"	"	"	"	"	
Tetrachloroethene	ND	0.1	"	"	"	"	"	"	
Ethylbenzene	ND	0.5	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.5	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	1.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.5	"	"	"	"	"	"	
Freon 113	ND	0.5	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*105 %*	*75-125*		"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*112 %*	*75-125*		"	"	"	"	
Surrogate: Toluene-d8		*113 %*	*75-125*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*94.8 %*	*75-125*		"	"	"	"	

MOBILE GEOCHEMISTRY

H&P

URS - Las Vegas	Project: UR030707-10	
811 Grier Dr.	Project Number: 26698724 / Maryland Square Al Phillips	Reported:
Las Vegas, NV 89119	Project Manager: Ms. Lisa Lowe	14-Mar-07

Volatile Organic Compounds by EPA Method 8260B

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SVB-01-05, P400cc (E703019-02) Vapor	**Sampled: 06-Mar-07**	**Received: 07-Mar-07**							
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.1	EC70705	07-Mar-07	07-Mar-07	EPA 8260B	
Dichlorodifluoromethane	ND	0.5	"	"	"	"	"	"	
Vinyl chloride	ND	0.1	"	"	"	"	"	"	
Chloroethane	ND	0.5	"	"	"	"	"	"	
Trichlorofluoromethane	ND	0.5	"	"	"	"	"	"	
Methylene chloride	ND	0.5	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.5	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.5	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.5	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.5	"	"	"	"	"	"	
Chloroform	ND	0.1	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.5	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.1	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.1	"	"	"	"	"	"	
Benzene	ND	0.1	"	"	"	"	"	"	
Trichloroethene	ND	0.5	"	"	"	"	"	"	
Toluene	ND	1.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.5	"	"	"	"	"	"	
Tetrachloroethene	2.5	0.1	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.5	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	1.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.5	"	"	"	"	"	"	
Freon 113	ND	0.5	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*106 %*	*75-125*		"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*112 %*	*75-125*		"	"	"	"	
Surrogate: Toluene-d8		*110 %*	*75-125*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*93.2 %*	*75-125*		"	"	"	"	

MOBILE GEOCHEMISTRY
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URS - Las Vegas	Project: UR030707-10	
811 Grier Dr.	Project Number: 26698724 / Maryland Square Al Phillips	Reported:
Las Vegas, NV 89119	Project Manager: Ms. Lisa Lowe	14-Mar-07

Volatile Organic Compounds by EPA Method 8260B

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SVB-02-04, P400cc (E703019-03) Vapor	**Sampled: 06-Mar-07**	**Received: 07-Mar-07**							
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.1	EC70705	07-Mar-07	07-Mar-07	EPA 8260B	
Dichlorodifluoromethane	ND	0.5	"	"	"	"	"	"	
Vinyl chloride	ND	0.1	"	"	"	"	"	"	
Chloroethane	ND	0.5	"	"	"	"	"	"	
Trichlorofluoromethane	ND	0.5	"	"	"	"	"	"	
Methylene chloride	ND	0.5	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.5	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.5	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.5	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.5	"	"	"	"	"	"	
Chloroform	0.2	0.1	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.5	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.1	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.1	"	"	"	"	"	"	
Benzene	ND	0.1	"	"	"	"	"	"	
Trichloroethene	ND	0.5	"	"	"	"	"	"	
Toluene	ND	1.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.5	"	"	"	"	"	"	
Tetrachloroethene	3.0	0.1	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.5	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	1.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.5	"	"	"	"	"	"	
Freon 113	ND	0.5	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*109 %*		*75-125*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*113 %*		*75-125*	"	"	"	"	
Surrogate: Toluene-d8		*109 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*92.8 %*		*75-125*	"	"	"	"	

MOBILE GEOCHEMISTRY

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URS - Las Vegas	Project: UR030707-10	
811 Grier Dr.	Project Number: 26698724 / Maryland Square Al Phillips	Reported:
Las Vegas, NV 89119	Project Manager: Ms. Lisa Lowe	14-Mar-07

Volatile Organic Compounds by EPA Method 8260B

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SVB-02-10, P400cc (E703019-04) Vapor	**Sampled: 06-Mar-07**	**Received: 07-Mar-07**							
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.1	EC70705	07-Mar-07	07-Mar-07	EPA 8260B	
Dichlorodifluoromethane	ND	0.5	"	"	"	"	"	"	
Vinyl chloride	ND	0.1	"	"	"	"	"	"	
Chloroethane	ND	0.5	"	"	"	"	"	"	
Trichlorofluoromethane	ND	0.5	"	"	"	"	"	"	
Methylene chloride	ND	0.5	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.5	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.5	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.5	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.5	"	"	"	"	"	"	
Chloroform	ND	0.1	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.5	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.1	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.1	"	"	"	"	"	"	
Benzene	0.2	0.1	"	"	"	"	"	"	B
Trichloroethene	ND	0.5	"	"	"	"	"	"	
Toluene	ND	1.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.5	"	"	"	"	"	"	
Tetrachloroethene	ND	0.1	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.5	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	1.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.5	"	"	"	"	"	"	
Freon 113	ND	0.5	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*107 %*	*75-125*		"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*113 %*	*75-125*		"	"	"	"	
Surrogate: Toluene-d8		*108 %*	*75-125*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*95.2 %*	*75-125*		"	"	"	"	

MOBILE GEOCHEMISTRY
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URS - Las Vegas	Project: UR030707-10	
811 Grier Dr.	Project Number: 26698724 / Maryland Square Al Phillips	Reported:
Las Vegas, NV 89119	Project Manager: Ms. Lisa Lowe	14-Mar-07

Volatile Organic Compounds by EPA Method 8260B

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SVB-03-05, P400cc (E703019-05) Vapor	**Sampled: 06-Mar-07**	**Received: 07-Mar-07**							
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.1	EC70705	07-Mar-07	07-Mar-07	EPA 8260B	
Dichlorodifluoromethane	ND	0.5	"	"	"	"	"	"	
Vinyl chloride	ND	0.1	"	"	"	"	"	"	
Chloroethane	ND	0.5	"	"	"	"	"	"	
Trichlorofluoromethane	ND	0.5	"	"	"	"	"	"	
Methylene chloride	ND	0.5	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.5	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.5	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.5	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.5	"	"	"	"	"	"	
Chloroform	0.1	0.1	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.5	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.1	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.1	"	"	"	"	"	"	
Benzene	0.5	0.1	"	"	"	"	"	"	B
Trichloroethene	ND	0.5	"	"	"	"	"	"	
Toluene	ND	1.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.5	"	"	"	"	"	"	
Tetrachloroethene	46	0.1	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.5	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	1.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.5	"	"	"	"	"	"	
Freon 113	ND	0.5	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*107 %*		*75-125*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*114 %*		*75-125*	"	"	"	"	
Surrogate: Toluene-d8		*113 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*98.4 %*		*75-125*	"	"	"	"	

MOBILE GEOCHEMISTRY

H&P

URS - Las Vegas	Project: UR030707-10	
811 Grier Dr.	Project Number: 26698724 / Maryland Square Al Phillips	Reported:
Las Vegas, NV 89119	Project Manager: Ms. Lisa Lowe	14-Mar-07

Volatile Organic Compounds by EPA Method 8260B

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SVB-03-12, P400cc (E703019-06) Vapor	**Sampled: 06-Mar-07**	**Received: 07-Mar-07**							
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.1	EC70705	07-Mar-07	07-Mar-07	EPA 8260B	
Dichlorodifluoromethane	ND	0.5	"	"	"	"	"	"	
Vinyl chloride	ND	0.1	"	"	"	"	"	"	
Chloroethane	ND	0.5	"	"	"	"	"	"	
Trichlorofluoromethane	ND	0.5	"	"	"	"	"	"	
Methylene chloride	ND	0.5	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.5	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.5	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.5	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.5	"	"	"	"	"	"	
Chloroform	ND	0.1	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.5	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.1	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.1	"	"	"	"	"	"	
Benzene	0.2	0.1	"	"	"	"	"	"	B
Trichloroethene	ND	0.5	"	"	"	"	"	"	
Toluene	ND	1.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.5	"	"	"	"	"	"	
Tetrachloroethene	0.8	0.1	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.5	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	1.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.5	"	"	"	"	"	"	
Freon 113	ND	0.5	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*107 %*	*75-125*		"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*116 %*	*75-125*		"	"	"	"	
Surrogate: Toluene-d8		*113 %*	*75-125*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*96.4 %*	*75-125*		"	"	"	"	

MOBILE GEOCHEMISTRY

H&P

URS - Las Vegas	Project: UR030707-10	
811 Grier Dr.	Project Number: 26698724 / Maryland Square Al Phillips	Reported:
Las Vegas, NV 89119	Project Manager: Ms. Lisa Lowe	14-Mar-07

Volatile Organic Compounds by EPA Method 8260B

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SVB-04-05, P400cc (E703019-07) Vapor	**Sampled: 06-Mar-07**	**Received: 07-Mar-07**							
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.1	EC70705	07-Mar-07	07-Mar-07	EPA 8260B	
Dichlorodifluoromethane	ND	0.5	"	"	"	"	"	"	
Vinyl chloride	ND	0.1	"	"	"	"	"	"	
Chloroethane	ND	0.5	"	"	"	"	"	"	
Trichlorofluoromethane	ND	0.5	"	"	"	"	"	"	
Methylene chloride	ND	0.5	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.5	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.5	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.5	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.5	"	"	"	"	"	"	
Chloroform	ND	0.1	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.5	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.1	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.1	"	"	"	"	"	"	
Benzene	ND	0.1	"	"	"	"	"	"	
Trichloroethene	ND	0.5	"	"	"	"	"	"	
Toluene	ND	1.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.5	"	"	"	"	"	"	
Tetrachloroethene	0.4	0.1	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.5	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	1.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.5	"	"	"	"	"	"	
Freon 113	ND	0.5	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*109 %*	*75-125*		"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*120 %*	*75-125*		"	"	"	"	
Surrogate: Toluene-d8		*111 %*	*75-125*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*97.6 %*	*75-125*		"	"	"	"	

MOBILE GEOCHEMISTRY

H&P

URS - Las Vegas	Project: UR030707-10	
811 Grier Dr.	Project Number: 26698724 / Maryland Square Al Phillips	Reported:
Las Vegas, NV 89119	Project Manager: Ms. Lisa Lowe	14-Mar-07

Volatile Organic Compounds by EPA Method 8260B

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SVB-04-12, P400cc (E703019-08) Vapor	**Sampled: 06-Mar-07**	**Received: 07-Mar-07**							
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.1	EC70705	07-Mar-07	07-Mar-07	EPA 8260B	
Dichlorodifluoromethane	ND	0.5	"	"	"	"	"	"	
Vinyl chloride	ND	0.1	"	"	"	"	"	"	
Chloroethane	ND	0.5	"	"	"	"	"	"	
Trichlorofluoromethane	ND	0.5	"	"	"	"	"	"	
Methylene chloride	ND	0.5	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.5	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.5	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.5	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.5	"	"	"	"	"	"	
Chloroform	ND	0.1	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.5	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.1	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.1	"	"	"	"	"	"	
Benzene	ND	0.1	"	"	"	"	"	"	
Trichloroethene	ND	0.5	"	"	"	"	"	"	
Toluene	ND	1.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.5	"	"	"	"	"	"	
Tetrachloroethene	1.0	0.1	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.5	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	1.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.5	"	"	"	"	"	"	
Freon 113	ND	0.5	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*116 %*	*75-125*		"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*119 %*	*75-125*		"	"	"	"	
Surrogate: Toluene-d8		*111 %*	*75-125*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*91.6 %*	*75-125*		"	"	"	"	

MOBILE GEOCHEMISTRY

H&P

URS - Las Vegas	Project: UR030707-10	
811 Grier Dr.	Project Number: 26698724 / Maryland Square Al Phillips	Reported:
Las Vegas, NV 89119	Project Manager: Ms. Lisa Lowe	14-Mar-07

Volatile Organic Compounds by EPA Method 8260B - Quality Control

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EC70705 - EPA 5030										
Blank (EC70705-BLK1)				Prepared & Analyzed: 07-Mar-07						
1,1-Difluoroethane (LCC)	ND	10	ug/l							
Dichlorodifluoromethane	ND	0.5	"							
Vinyl chloride	ND	0.1	"							
Chloroethane	ND	0.5	"							
Trichlorofluoromethane	ND	0.5	"							
Methylene chloride	ND	0.5	"							
trans-1,2-Dichloroethene	ND	0.5	"							
1,1-Dichloroethane	ND	0.5	"							
1,1-Dichloroethene	ND	0.5	"							
cis-1,2-Dichloroethene	ND	0.5	"							
Chloroform	ND	0.1	"							
1,1,1-Trichloroethane	ND	0.5	"							
Carbon tetrachloride	ND	0.1	"							
1,2-Dichloroethane	ND	0.1	"							
Benzene	0.14	0.1	"							
Trichloroethene	ND	0.5	"							
Toluene	ND	1.0	"							
1,1,2-Trichloroethane	ND	0.5	"							
Tetrachloroethene	ND	0.1	"							
Ethylbenzene	ND	1.0	"							
1,1,1,2-Tetrachloroethane	ND	0.5	"							
m,p-Xylene	ND	1.0	"							
o-Xylene	ND	1.0	"							
1,1,2,2-Tetrachloroethane	ND	0.5	"							
Freon 113	ND	0.5	"							
Surrogate: Dibromofluoromethane	*2.57*		"	*2.50*		*103*	*75-125*			
Surrogate: 1,2-Dichloroethane-d4	*2.62*		"	*2.50*		*105*	*75-125*			
Surrogate: Toluene-d8	*2.77*		"	*2.50*		*111*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*2.46*		"	*2.50*		*98.4*	*75-125*			

MOBILE GEOCHEMISTRY H&P

Chain of Custody Record

Date: 3-6-07

H&P Project # URS30707-10

Outside Lab:

☒ 2470 Impala Dr., Carlsbad, CA 92010 • ph 760.804.9678 • fax 760.804.9159
☐ 3825 Industry Avenue, Lakewood, CA 90712 • ph 562.426.6991 • fax 562.426.6995

Client: URS
Address: 911 Grier Dr
Las Vegas NV 89119
Email: [illegible] Phone: 702-492-7923

Collector: [illegible] Page: 1 of 1
Client Project # [illegible]
Project Contact: L. Lowe
Location: [illegible]
Fax: 702-492-7149
Turn around time: [illegible]

EDF: Yes ☐ No ☐

Global ID:

Sample Receipt
Intact: ☒ Yes ☐ No
Seal Intact: ☐ Yes ☐ No ☒ N/A
Cold: ☐ Yes ☒ No
N/A (Received on Site)

Special Instructions:

Sample Name	Field Point Name	Purge Vol	Time	Date	Sample Type	Container Type	TPH ☐ gasoline ☐ diesel ☐ ext	418.1 TRPH	8021 for BTEX/MTBE	8260B: BTEX / Oxygenates	8260B: TPH gas	8260B: VOC's	8260B: DTSC/LARWQCB	8260B: Ketones	TO-15: Full List	TO-15: BTEX/MTBE	LCC (specify)	Naphthalene ☐ 8260B ☐ TO-15	Methane	Fixed Gases ☐ CO2 ☐ O2 ☐ N2				Total # of containers
Trip Blank	N/A				gas	Tedlar						X												
SVB-01-05	N/A	400cc	0910	3/6/07	↓	↓						X												
SVB-02-04	↓	↓	1021	↓	↓	↓						X												
SVB-02-10	↓	↓	1048	↓	↓	↓						X												
SVB-03-05	↓	↓	1127	↓	↓	↓						X												
SVB-03-12	↓	↓	1147	3/6/07	↓	↓						X												
SVB-04-05	↓	↓	1235	↓	↓	↓						X												
SVB-04-12	↓	↓	1252	↓	↓	↓						X												

Relinquished by: (Signature)	(company)	Received by: (Signature)	(company)	Date:	Time:
[signature]	URS	[signature] via FedEx	H&P	3-6-07	1635
Relinquished by: (Signature)	(company)	Received by: (Signature)	(company)	3/7/07	[illegible]
Relinquished by: (Signature)	(company)	Received by: (Signature)	(company)	Date:	Time:

*Signature constitutes authorization to proceed with analysis and acceptance of condition on back.

Sample disposal instruction: ☒ Disposal @ $2.00 each ☐ Return to client ☐ Pickup

MOBILE GEOCHEMISTRY

H&P

14 March 2007

Ms. Lisa Lowe
URS - Las Vegas
811 Grier Dr.
Las Vegas, NV 89119
RE: UR030807-10

Enclosed are the results of analyses for samples received by the laboratory on 08-Mar-07 . If you have any questions concerning this report, please feel free to contact me.

Sincerely,

J Villarreal

Janis Villarreal
Laboratory Director

H&P Mobile Geochemistry operates under CA Environmental Lab Accreditation Program Numbers 1317, 1561, 1667, 1745, 1746, 2088, 2278, 2543, 2579 and 2595.

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MOBILE GEOCHEMISTRY

H&P

URS - Las Vegas	Project: UR030807-10	
811 Grier Dr.	Project Number: 26698724 / Maryland Square Al Phillips	Reported:
Las Vegas, NV 89119	Project Manager: Ms. Lisa Lowe	14-Mar-07

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Field Blank (SVB-07), P400cc	E703027-01	Vapor	07-Mar-07	08-Mar-07
SVB-07-05, P400cc	E703027-02	Vapor	07-Mar-07	08-Mar-07
SVB-08-05, P400cc	E703027-03	Vapor	07-Mar-07	08-Mar-07
SVB-08-10, P400cc	E703027-04	Vapor	07-Mar-07	08-Mar-07
SVB-08-910, P400cc	E703027-05	Vapor	07-Mar-07	08-Mar-07
SVB-09-05, P400cc	E703027-06	Vapor	07-Mar-07	08-Mar-07
SVB-09-10, P400cc	E703027-07	Vapor	07-Mar-07	08-Mar-07
SVB-10-05, P400cc	E703027-08	Vapor	07-Mar-07	08-Mar-07
SVB-10-10, P400cc	E703027-09	Vapor	07-Mar-07	08-Mar-07
SVB-05-08, P400cc	E703027-10	Vapor	07-Mar-07	08-Mar-07
SVB-05-98, P400cc	E703027-11	Vapor	07-Mar-07	08-Mar-07
SVB-05-13, P400cc	E703027-12	Vapor	07-Mar-07	08-Mar-07
SVB-06-08, P400cc	E703027-13	Vapor	07-Mar-07	08-Mar-07
SVB-06-12, P400cc	E703027-14	Vapor	07-Mar-07	08-Mar-07

MOBILE GEOCHEMISTRY

H&P

URS - Las Vegas	Project: UR030807-10	
811 Grier Dr.	Project Number: 26698724 / Maryland Square Al Phillips	Reported:
Las Vegas, NV 89119	Project Manager: Ms. Lisa Lowe	14-Mar-07

Volatile Organic Compounds by EPA Method 8260B

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
Field Blank (SVB-07), P400cc (E703027-01) Vapor	**Sampled: 07-Mar-07**	**Received: 08-Mar-07**							
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.1	EC70809	08-Mar-07	08-Mar-07	EPA 8260B	
Dichlorodifluoromethane	ND	0.5	"	"	"	"	"	"	
Vinyl chloride	ND	0.1	"	"	"	"	"	"	
Chloroethane	ND	0.5	"	"	"	"	"	"	
Trichlorofluoromethane	ND	0.5	"	"	"	"	"	"	
Methylene chloride	ND	0.5	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.5	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.5	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.5	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.5	"	"	"	"	"	"	
Chloroform	ND	0.1	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.5	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.1	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.1	"	"	"	"	"	"	
Benzene	ND	0.1	"	"	"	"	"	"	
Trichloroethene	ND	0.5	"	"	"	"	"	"	
Toluene	ND	1.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.5	"	"	"	"	"	"	
Tetrachloroethene	ND	0.1	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
1,1,1,2-Tetrachlorocthane	ND	0.5	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	1.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.5	"	"	"	"	"	"	
Freon 113	ND	0.5	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane	*117 %*	*75-125*			"	"	"	"	
Surrogate: Toluene-d8	*102 %*	*75-125*			"	"	"	"	
Surrogate: 4-Bromofluorobenzene	*94.0 %*	*75-125*			"	"	"	"	

MOBILE GEOCHEMISTRY

H&P

URS - Las Vegas	Project: UR030807-10	
811 Grier Dr.	Project Number: 26698724 / Maryland Square Al Phillips	Reported:
Las Vegas, NV 89119	Project Manager: Ms. Lisa Lowe	14-Mar-07

Volatile Organic Compounds by EPA Method 8260B

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SVB-07-05, P400cc (E703027-02) Vapor	**Sampled: 07-Mar-07**	**Received: 08-Mar-07**							
1,1-Difluoroethane (LCC)	25	10	ug/l	0.1	EC70809	08-Mar-07	08-Mar-07	EPA 8260B	
Dichlorodifluoromethane	ND	0.5	"	"	"	"	"	"	
Vinyl chloride	ND	0.1	"	"	"	"	"	"	
Chloroethane	ND	0.5	"	"	"	"	"	"	
Trichlorofluoromethane	ND	0.5	"	"	"	"	"	"	
Methylene chloride	ND	0.5	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.5	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.5	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.5	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.5	"	"	"	"	"	"	
Chloroform	0.2	0.1	"	"	"	"	"	"	B
1,1,1-Trichloroethane	ND	0.5	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.1	"	"	"	"	"	"	
1,2-Dichloroethane	0.3	0.1	"	"	"	"	"	"	
Benzene	ND	0.1	"	"	"	"	"	"	
Trichloroethene	ND	0.5	"	"	"	"	"	"	
Toluene	ND	1.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.5	"	"	"	"	"	"	
Tetrachloroethene	11	0.1	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.5	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	1.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.5	"	"	"	"	"	"	
Freon 113	ND	0.5	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*124 %*		*75-125*	"	"	"	"	
Surrogate: Toluene-d8		*100 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*95.2 %*		*75-125*	"	"	"	"	

MOBILE GEOCHEMISTRY

H&P

URS - Las Vegas	Project: UR030807-10	
811 Grier Dr.	Project Number: 26698724 / Maryland Square Al Phillips	Reported:
Las Vegas, NV 89119	Project Manager: Ms. Lisa Lowe	14-Mar-07

Volatile Organic Compounds by EPA Method 8260B

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SVB-08-05, P400cc (E703027-03) Vapor	**Sampled: 07-Mar-07**	**Received: 08-Mar-07**							
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.1	EC70809	08-Mar-07	08-Mar-07	EPA 8260B	
Dichlorodifluoromethane	ND	0.5	"	"	"	"	"	"	
Vinyl chloride	ND	0.1	"	"	"	"	"	"	
Chloroethane	ND	0.5	"	"	"	"	"	"	
Trichlorofluoromethane	ND	0.5	"	"	"	"	"	"	
Methylene chloride	ND	0.5	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.5	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.5	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.5	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.5	"	"	"	"	"	"	
Chloroform	ND	0.1	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.5	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.1	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.1	"	"	"	"	"	"	
Benzene	ND	0.1	"	"	"	"	"	"	
Trichloroethene	ND	0.5	"	"	"	"	"	"	
Toluene	ND	1.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.5	"	"	"	"	"	"	
Tetrachloroethene	2.7	0.1	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.5	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	1.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.5	"	"	"	"	"	"	
Freon 113	ND	0.5	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*106 %*	*75-125*		"	"	"	"	
Surrogate: Toluene-d8		*103 %*	*75-125*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*93.6 %*	*75-125*		"	"	"	"	

MOBILE GEOCHEMISTRY

H&P

URS - Las Vegas	Project: UR030807-10	
811 Grier Dr.	Project Number: 26698724 / Maryland Square Al Phillips	Reported:
Las Vegas, NV 89119	Project Manager: Ms. Lisa Lowe	14-Mar-07

Volatile Organic Compounds by EPA Method 8260B

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SVB-08-10, P400cc (E703027-04) Vapor	**Sampled: 07-Mar-07**	**Received: 08-Mar-07**							
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.1	EC70809	08-Mar-07	08-Mar-07	EPA 8260B	
Dichlorodifluoromethane	ND	0.5	"	"	"	"	"	"	
Vinyl chloride	ND	0.1	"	"	"	"	"	"	
Chloroethane	ND	0.5	"	"	"	"	"	"	
Trichlorofluoromethane	ND	0.5	"	"	"	"	"	"	
Methylene chloride	ND	0.5	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.5	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.5	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.5	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.5	"	"	"	"	"	"	
Chloroform	0.2	0.1	"	"	"	"	"	"	B
1,1,1-Trichloroethane	ND	0.5	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.1	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.1	"	"	"	"	"	"	
Benzene	0.1	0.1	"	"	"	"	"	"	B
Trichloroethene	ND	0.5	"	"	"	"	"	"	
Toluene	ND	1.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.5	"	"	"	"	"	"	
Tetrachloroethene	7.1	0.1	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.5	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	1.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.5	"	"	"	"	"	"	
Freon 113	ND	0.5	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*120 %*		*75-125*		"	"	"	
Surrogate: Toluene-d8		*104 %*		*75-125*		"	"	"	
Surrogate: 4-Bromofluorobenzene		*93.2 %*		*75-125*		"	"	"	

MOBILE GEOCHEMISTRY

H&P

URS - Las Vegas	Project: UR030807-10	
811 Grier Dr.	Project Number: 26698724 / Maryland Square Al Phillips	Reported:
Las Vegas, NV 89119	Project Manager: Ms. Lisa Lowe	14-Mar-07

Volatile Organic Compounds by EPA Method 8260B

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SVB-08-910, P400cc (E703027-05) Vapor	**Sampled: 07-Mar-07**	**Received: 08-Mar-07**							
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.1	EC70809	08-Mar-07	08-Mar-07	EPA 8260B	
Dichlorodifluoromethane	ND	0.5	"	"	"	"	"	"	
Vinyl chloride	ND	0.1	"	"	"	"	"	"	
Chloroethane	ND	0.5	"	"	"	"	"	"	
Trichlorofluoromethane	ND	0.5	"	"	"	"	"	"	
Methylene chloride	ND	0.5	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.5	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.5	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.5	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.5	"	"	"	"	"	"	
Chloroform	0.1	0.1	"	"	"	"	"	"	B
1,1,1-Trichloroethane	ND	0.5	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.1	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.1	"	"	"	"	"	"	
Benzene	ND	0.1	"	"	"	"	"	"	
Trichloroethene	ND	0.5	"	"	"	"	"	"	
Toluene	ND	1.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.5	"	"	"	"	"	"	
Tetrachloroethene	15	0.1	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.5	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	1.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.5	"	"	"	"	"	"	
Freon 113	1.0	0.5	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*114 %*		*75-125*	"	"	"	"	
Surrogate: Toluene-d8		*103 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*92.0 %*		*75-125*	"	"	"	"	

MOBILE GEOCHEMISTRY

H&P

URS - Las Vegas	Project: UR030807-10	
811 Grier Dr.	Project Number: 26698724 / Maryland Square Al Phillips	Reported:
Las Vegas, NV 89119	Project Manager: Ms. Lisa Lowe	14-Mar-07

Volatile Organic Compounds by EPA Method 8260B

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SVB-09-05, P400cc (E703027-06) Vapor	**Sampled: 07-Mar-07**	**Received: 08-Mar-07**							
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.1	EC70809	08-Mar-07	08-Mar-07	EPA 8260B	
Dichlorodifluoromethane	ND	0.5	"	"	"	"	"	"	
Vinyl chloride	ND	0.1	"	"	"	"	"	"	
Chloroethane	ND	0.5	"	"	"	"	"	"	
Trichlorofluoromethane	ND	0.5	"	"	"	"	"	"	
Methylene chloride	ND	0.5	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.5	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.5	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.5	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.5	"	"	"	"	"	"	
Chloroform	0.1	0.1	"	"	"	"	"	"	B
1,1,1-Trichloroethane	ND	0.5	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.1	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.1	"	"	"	"	"	"	
Benzene	ND	0.1	"	"	"	"	"	"	
Trichloroethene	ND	0.5	"	"	"	"	"	"	
Toluene	ND	1.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.5	"	"	"	"	"	"	
Tetrachloroethene	9.0	0.1	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.5	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	1.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.5	"	"	"	"	"	"	
Freon 113	0.8	0.5	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane	*116 %*		*75-125*		"	"	"	"	
Surrogate: Toluene-d8	*107 %*		*75-125*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	*95.6 %*		*75-125*		"	"	"	"	

MOBILE GEOCHEMISTRY

H&P

URS - Las Vegas	Project: UR030807-10	
811 Grier Dr.	Project Number: 26698724 / Maryland Square Al Phillips	Reported:
Las Vegas, NV 89119	Project Manager: Ms. Lisa Lowe	14-Mar-07

Volatile Organic Compounds by EPA Method 8260B

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SVB-09-10, P400cc (E703027-07) Vapor	**Sampled: 07-Mar-07**	**Received: 08-Mar-07**							
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.1	EC70809	08-Mar-07	08-Mar-07	EPA 8260B	
Dichlorodifluoromethane	ND	0.5	"	"	"	"	"	"	
Vinyl chloride	ND	0.1	"	"	"	"	"	"	
Chloroethane	ND	0.5	"	"	"	"	"	"	
Trichlorofluoromethane	ND	0.5	"	"	"	"	"	"	
Methylene chloride	ND	0.5	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.5	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.5	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.5	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.5	"	"	"	"	"	"	
Chloroform	0.4	0.1	"	"	"	"	"	"	B
1,1,1-Trichloroethane	ND	0.5	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.1	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.1	"	"	"	"	"	"	
Benzene	0.1	0.1	"	"	"	"	"	"	B
Trichloroethene	ND	0.5	"	"	"	"	"	"	
Toluene	ND	1.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.5	"	"	"	"	"	"	
Tetrachloroethene	23	0.1	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.5	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	1.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.5	"	"	"	"	"	"	
Freon 113	1.1	0.5	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*112 %*		*75-125*	"	"	"	"	
Surrogate: Toluene-d8		*105 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*94.8 %*		*75-125*	"	"	"	"	

MOBILE GEOCHEMISTRY

H&P

URS - Las Vegas	Project: UR030807-10	
811 Grier Dr.	Project Number: 26698724 / Maryland Square Al Phillips	Reported:
Las Vegas, NV 89119	Project Manager: Ms. Lisa Lowe	14-Mar-07

Volatile Organic Compounds by EPA Method 8260B

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SVB-10-05, P400cc (E703027-08) Vapor	**Sampled: 07-Mar-07**	**Received: 08-Mar-07**							
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.1	EC70809	08-Mar-07	08-Mar-07	EPA 8260B	
Dichlorodifluoromethane	ND	0.5	"	"	"	"	"	"	
Vinyl chloride	ND	0.1	"	"	"	"	"	"	
Chloroethane	ND	0.5	"	"	"	"	"	"	
Trichlorofluoromethane	ND	0.5	"	"	"	"	"	"	
Methylene chloride	ND	0.5	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.5	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.5	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.5	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.5	"	"	"	"	"	"	
Chloroform	0.1	0.1	"	"	"	"	"	"	B
1,1,1-Trichloroethane	ND	0.5	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.1	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.1	"	"	"	"	"	"	
Benzene	0.1	0.1	"	"	"	"	"	"	B
Trichloroethene	ND	0.5	"	"	"	"	"	"	
Toluene	ND	1.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.5	"	"	"	"	"	"	
Tetrachloroethene	42	0.1	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.5	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	1.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.5	"	"	"	"	"	"	
Freon 113	1.2	0.5	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*112 %*		*75-125*	"	"	"	"	
Surrogate: Toluene-d8		*102 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*96.8 %*		*75-125*	"	"	"	"	

MOBILE GEOCHEMISTRY

H&P

URS - Las Vegas	Project: UR030807-10	
811 Grier Dr.	Project Number: 26698724 / Maryland Square Al Phillips	Reported:
Las Vegas, NV 89119	Project Manager: Ms. Lisa Lowe	14-Mar-07

Volatile Organic Compounds by EPA Method 8260B

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SVB-10-10, P400cc (E703027-09) Vapor	**Sampled: 07-Mar-07**	**Received: 08-Mar-07**							
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.1	EC70809	08-Mar-07	08-Mar-07	EPA 8260B	
Dichlorodifluoromethane	ND	0.5	"	"	"	"	"	"	
Vinyl chloride	ND	0.1	"	"	"	"	"	"	
Chloroethane	ND	0.5	"	"	"	"	"	"	
Trichlorofluoromethane	ND	0.5	"	"	"	"	"	"	
Methylene chloride	ND	0.5	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.5	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.5	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.5	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.5	"	"	"	"	"	"	
Chloroform	0.1	0.1	"	"	"	"	"	"	B
1,1,1-Trichloroethane	ND	0.5	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.1	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.1	"	"	"	"	"	"	
Benzene	ND	0.1	"	"	"	"	"	"	
Trichloroethene	ND	0.5	"	"	"	"	"	"	
Toluene	ND	1.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.5	"	"	"	"	"	"	
Tetrachloroethene	27	0.1	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.5	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	1.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.5	"	"	"	"	"	"	
Freon 113	0.6	0.5	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*125 %*		*75-125*	"	"	"	"	
Surrogate: Toluene-d8		*104 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*94.4 %*		*75-125*	"	"	"	"	

MOBILE GEOCHEMISTRY

H&P

URS - Las Vegas	Project: UR030807-10	
811 Grier Dr.	Project Number: 26698724 / Maryland Square Al Phillips	Reported:
Las Vegas, NV 89119	Project Manager: Ms. Lisa Lowe	14-Mar-07

Volatile Organic Compounds by EPA Method 8260B

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SVB-05-08, P400cc (E703027-10) Vapor	**Sampled: 07-Mar-07**	**Received: 08-Mar-07**							
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.1	EC70809	08-Mar-07	08-Mar-07	EPA 8260B	
Dichlorodifluoromethane	ND	0.5	"	"	"	"	"	"	
Vinyl chloride	ND	0.1	"	"	"	"	"	"	
Chloroethane	ND	0.5	"	"	"	"	"	"	
Trichlorofluoromethane	ND	0.5	"	"	"	"	"	"	
Methylene chloride	ND	0.5	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.5	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.5	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.5	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.5	"	"	"	"	"	"	
Chloroform	0.1	0.1	"	"	"	"	"	"	B
1,1,1-Trichloroethane	ND	0.5	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.1	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.1	"	"	"	"	"	"	
Benzene	ND	0.1	"	"	"	"	"	"	
Trichloroethene	ND	0.5	"	"	"	"	"	"	
Toluene	ND	1.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.5	"	"	"	"	"	"	
Tetrachloroethene	25	0.1	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.5	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	1.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.5	"	"	"	"	"	"	
Freon 113	ND	0.5	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*116 %*		*75-125*		"	"	"	
Surrogate: Toluene-d8		*102 %*		*75-125*		"	"	"	
Surrogate: 4-Bromofluorobenzene		*98.4 %*		*75-125*		"	"	"	

MOBILE GEOCHEMISTRY

H&P

URS - Las Vegas	Project: UR030807-10	
811 Grier Dr.	Project Number: 26698724 / Maryland Square Al Phillips	Reported:
Las Vegas, NV 89119	Project Manager: Ms. Lisa Lowe	14-Mar-07

Volatile Organic Compounds by EPA Method 8260B

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SVB-05-98, P400cc (E703027-11) Vapor	**Sampled: 07-Mar-07**	**Received: 08-Mar-07**							
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.1	EC70809	08-Mar-07	08-Mar-07	EPA 8260B	
Dichlorodifluoromethane	ND	0.5	"	"	"	"	"	"	
Vinyl chloride	ND	0.1	"	"	"	"	"	"	
Chloroethane	ND	0.5	"	"	"	"	"	"	
Trichlorofluoromethane	ND	0.5	"	"	"	"	"	"	
Methylene chloride	ND	0.5	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.5	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.5	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.5	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.5	"	"	"	"	"	"	
Chloroform	ND	0.1	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.5	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.1	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.1	"	"	"	"	"	"	
Benzene	ND	0.1	"	"	"	"	"	"	
Trichloroethene	ND	0.5	"	"	"	"	"	"	
Toluene	ND	1.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.5	"	"	"	"	"	"	
Tetrachloroethene	17	0.1	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.5	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	1.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.5	"	"	"	"	"	"	
Freon 113	ND	0.5	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*118 %*	*75-125*		"	"	"	"	
Surrogate: Toluene-d8		*106 %*	*75-125*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*94.8 %*	*75-125*		"	"	"	"	

MOBILE GEOCHEMISTRY

H&P

URS - Las Vegas	Project: UR030807-10	
811 Grier Dr.	Project Number: 26698724 / Maryland Square Al Phillips	Reported:
Las Vegas, NV 89119	Project Manager: Ms. Lisa Lowe	14-Mar-07

Volatile Organic Compounds by EPA Method 8260B

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SVB-05-13, P400cc (E703027-12) Vapor	**Sampled: 07-Mar-07**	**Received: 08-Mar-07**							
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.1	EC70809	08-Mar-07	08-Mar-07	EPA 8260B	
Dichlorodifluoromethane	ND	0.5	"	"	"	"	"	"	
Vinyl chloride	ND	0.1	"	"	"	"	"	"	
Chloroethane	ND	0.5	"	"	"	"	"	"	
Trichlorofluoromethane	ND	0.5	"	"	"	"	"	"	
Methylene chloride	ND	0.5	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.5	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.5	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.5	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.5	"	"	"	"	"	"	
Chloroform	0.1	0.1	"	"	"	"	"	"	B
1,1,1-Trichloroethane	ND	0.5	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.1	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.1	"	"	"	"	"	"	
Benzene	ND	0.1	"	"	"	"	"	"	
Trichloroethene	ND	0.5	"	"	"	"	"	"	
Toluene	ND	1.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.5	"	"	"	"	"	"	
Tetrachloroethene	1.1	0.1	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.5	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	1.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.5	"	"	"	"	"	"	
Freon 113	ND	0.5	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*123 %*		*75-125*	"	"	"	"	
Surrogate: Toluene-d8		*103 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*100 %*		*75-125*	"	"	"	"	

MOBILE GEOCHEMISTRY

H&P

URS - Las Vegas	Project: UR030807-10	
811 Grier Dr.	Project Number: 26698724 / Maryland Square Al Phillips	Reported:
Las Vegas, NV 89119	Project Manager: Ms. Lisa Lowe	14-Mar-07

Volatile Organic Compounds by EPA Method 8260B

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SVB-06-08, P400cc (E703027-13) Vapor	**Sampled: 07-Mar-07**	**Received: 08-Mar-07**							
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.1	EC70809	08-Mar-07	08-Mar-07	EPA 8260B	
Dichlorodifluoromethane	ND	0.5	"	"	"	"	"	"	
Vinyl chloride	ND	0.1	"	"	"	"	"	"	
Chloroethane	ND	0.5	"	"	"	"	"	"	
Trichlorofluoromethane	ND	0.5	"	"	"	"	"	"	
Methylene chloride	ND	0.5	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.5	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.5	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.5	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.5	"	"	"	"	"	"	
Chloroform	0.1	0.1	"	"	"	"	"	"	B
1,1,1-Trichloroethane	ND	0.5	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.1	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.1	"	"	"	"	"	"	
Benzene	ND	0.1	"	"	"	"	"	"	
Trichloroethene	ND	0.5	"	"	"	"	"	"	
Toluene	ND	1.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.5	"	"	"	"	"	"	
Tetrachloroethene	ND	0.1	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.5	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	1.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.5	"	"	"	"	"	"	
Freon 113	ND	0.5	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*116 %*		*75-125*	"	"	"	"	
Surrogate: Toluene-d8		*102 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*94.8 %*		*75-125*	"	"	"	"	

MOBILE GEOCHEMISTRY

H&P

URS - Las Vegas	Project: UR030807-10	
811 Grier Dr.	Project Number: 26698724 / Maryland Square Al Phillips	Reported:
Las Vegas, NV 89119	Project Manager: Ms. Lisa Lowe	14-Mar-07

Volatile Organic Compounds by EPA Method 8260B

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SVB-06-12, P400cc (E703027-14) Vapor	**Sampled: 07-Mar-07**	**Received: 08-Mar-07**							
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.1	EC70809	08-Mar-07	08-Mar-07	EPA 8260B	
Dichlorodifluoromethane	ND	0.5	"	"	"	"	"	"	
Vinyl chloride	ND	0.1	"	"	"	"	"	"	
Chloroethane	ND	0.5	"	"	"	"	"	"	
Trichlorofluoromethane	ND	0.5	"	"	"	"	"	"	
Methylene chloride	ND	0.5	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.5	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.5	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.5	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.5	"	"	"	"	"	"	
Chloroform	0.1	0.1	"	"	"	"	"	"	B
1,1,1-Trichloroethane	ND	0.5	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.1	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.1	"	"	"	"	"	"	
Benzene	ND	0.1	"	"	"	"	"	"	
Trichloroethene	ND	0.5	"	"	"	"	"	"	
Toluene	ND	1.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.5	"	"	"	"	"	"	
Tetrachloroethene	12	0.1	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.5	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	1.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.5	"	"	"	"	"	"	
Freon 113	ND	0.5	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*110 %*		*75-125*	"	"	"	"	
Surrogate: Toluene-d8		*103 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*95.2 %*		*75-125*	"	"	"	"	

MOBILE GEOCHEMISTRY

H&P

URS - Las Vegas	Project: UR030807-10	
811 Grier Dr.	Project Number: 26698724 / Maryland Square Al Phillips	Reported:
Las Vegas, NV 89119	Project Manager: Ms. Lisa Lowe	14-Mar-07

Volatile Organic Compounds by EPA Method 8260B - Quality Control

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EC70809 - EPA 5030										
Blank (EC70809-BLK1)				Prepared & Analyzed: 08-Mar-07						
1,1-Difluoroethane (LCC)	ND	10	ug/l							
Dichlorodifluoromethane	ND	0.5	"							
Vinyl chloride	ND	0.1	"							
Chloroethane	ND	0.5	"							
Trichlorofluoromethane	ND	0.5	"							
Methylene chloride	ND	0.5	"							
trans-1,2-Dichloroethene	ND	0.5	"							
1,1-Dichloroethane	ND	0.5	"							
1,1-Dichloroethene	ND	0.5	"							
cis-1,2-Dichloroethene	ND	0.5	"							
Chloroform	0.16	0.1	"							
1,1,1-Trichloroethane	ND	0.5	"							
Carbon tetrachloride	ND	0.1	"							
1,2-Dichloroethane	ND	0.1	"							
Benzene	0.18	0.1	"							
Trichloroethene	ND	0.5	"							
Toluene	ND	1.0	"							
1,1,2-Trichloroethane	ND	0.5	"							
Tetrachloroethene	ND	0.1	"							
Ethylbenzene	ND	1.0	"							
1,1,1,2-Tetrachloroethane	ND	0.5	"							
m,p-Xylene	ND	1.0	"							
o-Xylene	ND	1.0	"							
1,1,2,2-Tetrachloroethane	ND	0.5	"							
Freon 113	ND	0.5	"							
Surrogate: Dibromofluoromethane	*2.89*		"	*2.50*		*116*	*75-125*			
Surrogate: 1,2-Dichloroethane-d4	*3.07*		"	*2.50*		*123*	*75-125*			
Surrogate: Toluene-d8	*2.62*		"	*2.50*		*105*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*2.39*		"	*2.50*		*95.6*	*75-125*			

MOBILE GEOCHEMISTRY
H&P

URS - Las Vegas	Project: UR030807-10	
811 Grier Dr.	Project Number: 26698724 / Maryland Square Al Phillips	Reported:
Las Vegas, NV 89119	Project Manager: Ms. Lisa Lowe	14-Mar-07

Notes and Definitions

B	Analyte is found in the associated blank as well as in the sample (CLP B-flag).
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

MOBILE GEOCHEMISTRY

H&P

Chain of Custody Record

E703027

☒ 2470 Impala Dr., Carlsbad, CA 92010 • ph 760.804.9678 • fax 760.804.9159
☐ 3825 Industry Avenue, Lakewood, CA 90712 • ph 562.426.6991 • fax 562.426.6995

Date: 3-7-07
H&P Project # HR030807-10
Outside Lab:

Client: IRS
Address: 11 Circle Dr
Las Vegas NV 89119
Email: Lisa.Lowe@irs.gov Phone: 702-492-7723

Collector: Lisa Lowe
Client Project # 566937Z4
Location: Maryland Square AI Phillips
Fax: 702-492-9149

Page: 1 of 2
Project Contact: L. Lowe
Turn around time: 48 hr

EDF: Yes ☐ No ☐
Global ID:

Sample Receipt
Intact: ☐ Yes ☐ No
Seal Intact: ☐ Yes ☐ No ☐ N/A
Cold: ☐ Yes ☐ No
N/A (Received on Site)

Special Instructions:

Sample Name	Field Point Name	Purge Vol	Time	Date	Sample Type	Container Type	TPH ☐ gasoline ☐ diesel ☐ ext	418.1 TRPH	8021 for BTEX/MTBE	8260B: BTEX / Oxygenates	8260B: TPH gas	8260B: VOC's	8260B: DTSC/LARWQCB	8260B: Ketones	TO-15: Full List	TO-15: BTEX/MTBE	LCC (specify) 1,1-DCE	Naphthalene ☐ 8260B ☐ TO-15	Methane	Fixed Gases ☐ CO_2 ☐ O_2 ☐ N_2				Total # of containers
Field Blank (IRS 07)		4 voa	0825	3/7/07	grab	Walker						X					(X)	Ac 3/8/07 added per phone conversation w/ LL						
[illegible]			0809									X												
[illegible]			0907									X												
[illegible]			[illegible]									X												
[illegible]			[illegible]									X												
[illegible]			1125									X												
[illegible]			1203									X												
[illegible]			1254									X												
[illegible]			[illegible]									X												
[illegible]			[illegible]	↓	↓	↓						X												

Relinquished by: (Signature)	(company)	Received by: (Signature)	(company)	Date:	Time:
Relinquished by: (Signature)	(company)	Received by: (Signature)	(company)	Date: 3/8/07	Time:
Relinquished by: (Signature)	(company)	Received by: (Signature)	(company)	Date:	Time:

*Signature constitutes authorization to proceed with analysis and acceptance of condition on back.

Sample disposal instruction: ☒ Disposal @ $2.00 each ☐ Return to client ☐ Pickup

Chain of Custody Record

MOBILE GEOCHEMISTRY H&P

- [x] 2470 Impala Dr., Carlsbad, CA 92010 • ph 760.804.9678 • fax 760.804.9159
- [ ] 3825 Industry Avenue, Lakewood, CA 90712 • ph 562.426.6991 • fax 562.426.6995

Date: 3-7-07
H&P Project # UR030807-10
Outside Lab:

Client: URS
Address: 911 Brier Drive, Las Vegas, NV 89119
Email: Lisa_Lowe@urscorp.com Phone: 702-492-7923

Collector: Lisa Lowe Page: 2 of 2
Client Project # 26698724 Project Contact: L. Lowe
Location: Maryland Square Al Phillips
Fax: 702-492-9149 Turn around time: 48 hr

EDF: Yes ☐ No ☐

Global ID:

Sample Receipt
Intact: ☐ Yes ☐ No
Seal Intact: ☐ Yes ☐ No ☐ N/A
Cold: ☐ Yes ☐ No
N/A (Received on Site)

Special Instructions:
* [illegible] SVB-05-18 [illegible]

	Sample Name	Field Point Name	Purge Vol	Time	Date	Sample Type	Container Type	TPH ☐ gasoline ☐ diesel ☐ ext	418.1 TRPH	8021 for BTEX/MTBE	8260B: BTEX / Oxygenates	8260B: TPH gas	8260B: VOC's	8260B: DTSC/LARWQCB	8260B: Ketones	TO-15: Full List	TO-15: BTEX/MTBE	LCC (specify) LLVFA	Naphthalene ☐ 8260B ☐ TO-15	Methane	Fixed Gases ☐ CO2 ☐ O2 ☐ N2			Total # of containers
*	SVB-05-08		400cc	1405	3/7/07	gas	tedlar						X					(X)						1
	SVB-05-13		↓	1435	↓	↓	↓						X					↓						
	SVB-06-08		↓	1504	↓	↓	↓						X					↓						
	SVB-06-12		↓	1523	↓	↓	↓						X					↓						

Relinquished by: (Signature)	(company)	Received by: (Signature)	(company)	Date:	Time:
[signature]	URS	[signature] via FedEx	H&P	3-7-07 → 3/8/07	9:05 am

*Signature constitutes authorization to proceed with analysis and acceptance of condition on back.

Sample disposal instruction: [x] Disposal @ $2.00 each ☐ Return to client ☐ Pickup

Holding ... make ev...

MOBILE GEOCHEMISTRY
H&P

23 March 2007

Ms. Lisa Lowe
URS - Las Vegas
811 Grier Dr.
Las Vegas, NV 89119
RE: UR032007-10

Enclosed are the results of analyses for samples received by the laboratory on 20-Mar-07 . If you have any questions concerning this report, please feel free to contact me.

Sincerely,

J Villarreal

Janis Villarreal
Laboratory Director

H&P Mobile Geochemistry operates under CA Environmental Lab Accreditation Program Numbers 1317, 1561, 1667, 1745, 1746, 2088, 2278, 2543, 2579 and 2595.

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MOBILE GEOCHEMISTRY

H&P

URS - Las Vegas	Project: UR032007-10	
811 Grier Dr.	Project Number: 26698724 / Maryland Square Al Phillips	Reported:
Las Vegas, NV 89119	Project Manager: Ms. Lisa Lowe	23-Mar-07

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Trip Blank	E703070-01	Vapor	07-Feb-07	20-Mar-07
SVB-16-5	E703070-02	Vapor	19-Mar-07	20-Mar-07
SVB-16-10	E703070-03	Vapor	19-Mar-07	20-Mar-07
SVB-16-25	E703070-04	Vapor	19-Mar-07	20-Mar-07
SVB-15-15	E703070-05	Vapor	19-Mar-07	20-Mar-07
SVB-15-20	E703070-06	Vapor	19-Mar-07	20-Mar-07
SVB-14-10	E703070-07	Vapor	19-Mar-07	20-Mar-07
SVB-14-20	E703070-08	Vapor	19-Mar-07	20-Mar-07
SVB-13-5	E703070-09	Vapor	19-Mar-07	20-Mar-07
SVB-13-10.5	E703070-10	Vapor	19-Mar-07	20-Mar-07
SVB-13-910.5	E703070-11	Vapor	19-Mar-07	20-Mar-07
SVB-13-20	E703070-12	Vapor	19-Mar-07	20-Mar-07

Sample written as SVB-16-25 on the chain-of-custody was labeled SVB-16-20.5 on the container.

MOBILE GEOCHEMISTRY

H&P

URS - Las Vegas	Project: UR032007-10	
811 Grier Dr.	Project Number: 26698724 / Maryland Square Al Phillips	Reported:
Las Vegas, NV 89119	Project Manager: Ms. Lisa Lowe	23-Mar-07

Volatile Organic Compounds by EPA Method 8260B

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
Trip Blank (E703070-01) Vapor	**Sampled: 07-Feb-07**	**Received: 20-Mar-07**							
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.1	EC72201	21-Mar-07	21-Mar-07	EPA 8260B	
Dichlorodifluoromethane	ND	0.5	"	"	"	"	"	"	
Vinyl chloride	ND	0.1	"	"	"	"	"	"	
Chloroethane	ND	0.5	"	"	"	"	"	"	
Trichlorofluoromethane	ND	0.5	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.5	"	"	"	"	"	"	
Methylene chloride	ND	0.5	"	"	"	"	"	"	
Freon 113	ND	0.5	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.5	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.5	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.5	"	"	"	"	"	"	
Chloroform	ND	0.1	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.5	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.1	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.1	"	"	"	"	"	"	
Benzene	ND	0.1	"	"	"	"	"	"	
Trichloroethene	ND	0.5	"	"	"	"	"	"	
Toluene	ND	1.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.5	"	"	"	"	"	"	
Tetrachloroethene	ND	0.1	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.5	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	1.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.5	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*108 %*	*75-125*		"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*114 %*	*75-125*		"	"	"	"	
Surrogate: Toluene-d8		*104 %*	*75-125*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*96.0 %*	*75-125*		"	"	"	"	

MOBILE GEOCHEMISTRY

H&P

URS - Las Vegas	Project: UR032007-10	
811 Grier Dr.	Project Number: 26698724 / Maryland Square Al Phillips	Reported:
Las Vegas, NV 89119	Project Manager: Ms. Lisa Lowe	23-Mar-07

Volatile Organic Compounds by EPA Method 8260B

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SVB-16-5 (E703070-02) Vapor Sampled: 19-Mar-07 Received: 20-Mar-07									
1,1-Difluoroethane (LCC)	30	10	ug/l	0.1	EC72201	21-Mar-07	21-Mar-07	EPA 8260B	
Dichlorodifluoromethane	ND	0.5	"	"	"	"	"	"	
Vinyl chloride	ND	0.1	"	"	"	"	"	"	
Chloroethane	ND	0.5	"	"	"	"	"	"	
Trichlorofluoromethane	ND	0.5	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.5	"	"	"	"	"	"	
Methylene chloride	ND	0.5	"	"	"	"	"	"	
Freon 113	ND	0.5	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.5	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.5	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.5	"	"	"	"	"	"	
Chloroform	0.1	0.1	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.5	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.1	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.1	"	"	"	"	"	"	
Benzene	0.1	0.1	"	"	"	"	"	"	
Trichloroethene	ND	0.5	"	"	"	"	"	"	
Toluene	ND	1.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.5	"	"	"	"	"	"	
Tetrachloroethene	ND	0.1	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.5	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	1.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.5	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*111 %*	*75-125*		"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*117 %*	*75-125*		"	"	"	"	
Surrogate: Toluene-d8		*105 %*	*75-125*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*93.2 %*	*75-125*		"	"	"	"	

MOBILE GEOCHEMISTRY

H&P

URS - Las Vegas	Project: UR032007-10	
811 Grier Dr.	Project Number: 26698724 / Maryland Square Al Phillips	Reported:
Las Vegas, NV 89119	Project Manager: Ms. Lisa Lowe	23-Mar-07

Volatile Organic Compounds by EPA Method 8260B

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SVB-16-10 (E703070-03) Vapor Sampled: 19-Mar-07 Received: 20-Mar-07									
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.1	EC72201	21-Mar-07	21-Mar-07	EPA 8260B	
Dichlorodifluoromethane	ND	0.5	"	"	"	"	"	"	
Vinyl chloride	ND	0.1	"	"	"	"	"	"	
Chloroethane	ND	0.5	"	"	"	"	"	"	
Trichlorofluoromethane	ND	0.5	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.5	"	"	"	"	"	"	
Methylene chloride	ND	0.5	"	"	"	"	"	"	
Freon 113	ND	0.5	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.5	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.5	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.5	"	"	"	"	"	"	
Chloroform	ND	0.1	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.5	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.1	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.1	"	"	"	"	"	"	
Benzene	ND	0.1	"	"	"	"	"	"	
Trichloroethene	ND	0.5	"	"	"	"	"	"	
Toluene	ND	1.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.5	"	"	"	"	"	"	
Tetrachloroethene	ND	0.1	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.5	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	1.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.5	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*114 %*		*75-125*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*119 %*		*75-125*	"	"	"	"	
Surrogate: Toluene-d8		*105 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*96.4 %*		*75-125*	"	"	"	"	

MOBILE GEOCHEMISTRY

H&P

URS - Las Vegas	Project: UR032007-10	
811 Grier Dr.	Project Number: 26698724 / Maryland Square Al Phillips	Reported:
Las Vegas, NV 89119	Project Manager: Ms. Lisa Lowe	23-Mar-07

Volatile Organic Compounds by EPA Method 8260B

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SVB-16-25 (E703070-04) Vapor	**Sampled: 19-Mar-07**	**Received: 20-Mar-07**							
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.1	EC72201	21-Mar-07	21-Mar-07	EPA 8260B	
Dichlorodifluoromethane	ND	0.5	"	"	"	"	"	"	
Vinyl chloride	ND	0.1	"	"	"	"	"	"	
Chloroethane	ND	0.5	"	"	"	"	"	"	
Trichlorofluoromethane	ND	0.5	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.5	"	"	"	"	"	"	
Methylene chloride	ND	0.5	"	"	"	"	"	"	
Freon 113	ND	0.5	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.5	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.5	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.5	"	"	"	"	"	"	
Chloroform	ND	0.1	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.5	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.1	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.1	"	"	"	"	"	"	
Benzene	ND	0.1	"	"	"	"	"	"	
Trichloroethene	ND	0.5	"	"	"	"	"	"	
Toluene	ND	1.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.5	"	"	"	"	"	"	
Tetrachloroethene	0.6	0.1	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.5	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	1.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.5	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*112 %*	*75-125*		"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*119 %*	*75-125*		"	"	"	"	
Surrogate: Toluene-d8		*105 %*	*75-125*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*95.2 %*	*75-125*		"	"	"	"	

MOBILE GEOCHEMISTRY

H&P

URS - Las Vegas	Project: UR032007-10	
811 Grier Dr.	Project Number: 26698724 / Maryland Square Al Phillips	Reported:
Las Vegas, NV 89119	Project Manager: Ms. Lisa Lowe	23-Mar-07

Volatile Organic Compounds by EPA Method 8260B

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SVB-15-15 (E703070-05) Vapor	**Sampled: 19-Mar-07**	**Received: 20-Mar-07**							
1,1-Difluoroethane (LCC)	240	10	ug/l	0.1	EC72201	21-Mar-07	21-Mar-07	EPA 8260B	
Dichlorodifluoromethane	ND	0.5	"	"	"	"	"	"	
Vinyl chloride	ND	0.1	"	"	"	"	"	"	
Chloroethane	ND	0.5	"	"	"	"	"	"	
Trichlorofluoromethane	ND	0.5	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.5	"	"	"	"	"	"	
Methylene chloride	ND	0.5	"	"	"	"	"	"	
Freon 113	ND	0.5	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.5	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.5	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.5	"	"	"	"	"	"	
Chloroform	ND	0.1	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.5	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.1	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.1	"	"	"	"	"	"	
Benzene	ND	0.1	"	"	"	"	"	"	
Trichloroethene	ND	0.5	"	"	"	"	"	"	
Toluene	ND	1.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.5	"	"	"	"	"	"	
Tetrachloroethene	ND	0.1	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.5	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	1.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.5	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*114 %*		*75-125*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*122 %*		*75-125*	"	"	"	"	
Surrogate: Toluene-d8		*104 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*92.4 %*		*75-125*	"	"	"	"	

MOBILE GEOCHEMISTRY

H&P

URS - Las Vegas	Project: UR032007-10	
811 Grier Dr.	Project Number: 26698724 / Maryland Square Al Phillips	Reported:
Las Vegas, NV 89119	Project Manager: Ms. Lisa Lowe	23-Mar-07

Volatile Organic Compounds by EPA Method 8260B

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SVB-15-20 (E703070-06) Vapor	**Sampled: 19-Mar-07**	**Received: 20-Mar-07**							
1,1-Difluoroethane (LCC)	12	10	ug/l	0.1	EC72201	21-Mar-07	21-Mar-07	EPA 8260B	
Dichlorodifluoromethane	ND	0.5	"	"	"	"	"	"	
Vinyl chloride	ND	0.1	"	"	"	"	"	"	
Chloroethane	ND	0.5	"	"	"	"	"	"	
Trichlorofluoromethane	ND	0.5	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.5	"	"	"	"	"	"	
Methylene chloride	ND	0.5	"	"	"	"	"	"	
Freon 113	ND	0.5	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.5	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.5	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.5	"	"	"	"	"	"	
Chloroform	ND	0.1	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.5	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.1	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.1	"	"	"	"	"	"	
Benzene	ND	0.1	"	"	"	"	"	"	
Trichloroethene	ND	0.5	"	"	"	"	"	"	
Toluene	ND	1.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.5	"	"	"	"	"	"	
Tetrachloroethene	0.2	0.1	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.5	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	1.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.5	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*114 %*	*75-125*		"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*118 %*	*75-125*		"	"	"	"	
Surrogate: Toluene-d8		*104 %*	*75-125*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*95.6 %*	*75-125*		"	"	"	"	

MOBILE GEOCHEMISTRY
H&P

URS - Las Vegas	Project: UR032007-10	
811 Grier Dr.	Project Number: 26698724 / Maryland Square Al Phillips	Reported:
Las Vegas, NV 89119	Project Manager: Ms. Lisa Lowe	23-Mar-07

Volatile Organic Compounds by EPA Method 8260B

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SVB-14-10 (E703070-07) Vapor Sampled: 19-Mar-07 Received: 20-Mar-07									
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.1	EC72201	21-Mar-07	21-Mar-07	EPA 8260B	
Dichlorodifluoromethane	ND	0.5	"	"	"	"	"	"	
Vinyl chloride	ND	0.1	"	"	"	"	"	"	
Chloroethane	ND	0.5	"	"	"	"	"	"	
Trichlorofluoromethane	ND	0.5	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.5	"	"	"	"	"	"	
Methylene chloride	ND	0.5	"	"	"	"	"	"	
Freon 113	ND	0.5	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.5	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.5	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.5	"	"	"	"	"	"	
Chloroform	ND	0.1	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.5	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.1	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.1	"	"	"	"	"	"	
Benzene	ND	0.1	"	"	"	"	"	"	
Trichloroethene	0.6	0.5	"	"	"	"	"	"	
Toluene	ND	1.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.5	"	"	"	"	"	"	
Tetrachloroethene	87	0.1	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.5	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	1.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.5	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*116 %*	*75-125*		"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*115 %*	*75-125*		"	"	"	"	
Surrogate: Toluene-d8		*104 %*	*75-125*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*95.2 %*	*75-125*		"	"	"	"	

MOBILE GEOCHEMISTRY

H&P

URS - Las Vegas	Project: UR032007-10	
811 Grier Dr.	Project Number: 26698724 / Maryland Square Al Phillips	Reported:
Las Vegas, NV 89119	Project Manager: Ms. Lisa Lowe	23-Mar-07

Volatile Organic Compounds by EPA Method 8260B

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SVB-14-20 (E703070-08) Vapor	**Sampled: 19-Mar-07**	**Received: 20-Mar-07**							
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.1	EC72201	21-Mar-07	21-Mar-07	EPA 8260B	
Dichlorodifluoromethane	ND	0.5	"	"	"	"	"	"	
Vinyl chloride	ND	0.1	"	"	"	"	"	"	
Chloroethane	ND	0.5	"	"	"	"	"	"	
Trichlorofluoromethane	ND	0.5	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.5	"	"	"	"	"	"	
Methylene chloride	ND	0.5	"	"	"	"	"	"	
Freon 113	ND	0.5	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.5	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.5	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.5	"	"	"	"	"	"	
Chloroform	0.2	0.1	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.5	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.1	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.1	"	"	"	"	"	"	
Benzene	ND	0.1	"	"	"	"	"	"	
Trichloroethene	1.0	0.5	"	"	"	"	"	"	
Toluene	ND	1.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.5	"	"	"	"	"	"	
Tetrachloroethene	170	0.1	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.5	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	1.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.5	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*121 %*	*75-125*		"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*124 %*	*75-125*		"	"	"	"	
Surrogate: Toluene-d8		*103 %*	*75-125*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*92.4 %*	*75-125*		"	"	"	"	

MOBILE GEOCHEMISTRY

H&P

URS - Las Vegas	Project: UR032007-10	
811 Grier Dr.	Project Number: 26698724 / Maryland Square At Phillips	Reported:
Las Vegas, NV 89119	Project Manager: Ms. Lisa Lowe	23-Mar-07

Volatile Organic Compounds by EPA Method 8260B

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SVB-13-5 (E703070-09) Vapor Sampled: 19-Mar-07 Received: 20-Mar-07									
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.1	EC72201	21-Mar-07	21-Mar-07	EPA 8260B	
Dichlorodifluoromethane	ND	0.5	"	"	"	"	"	"	
Vinyl chloride	ND	0.1	"	"	"	"	"	"	
Chloroethane	ND	0.5	"	"	"	"	"	"	
Trichlorofluoromethane	ND	0.5	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.5	"	"	"	"	"	"	
Methylene chloride	ND	0.5	"	"	"	"	"	"	
Freon 113	ND	0.5	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.5	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.5	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.5	"	"	"	"	"	"	
Chloroform	ND	0.1	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.5	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.1	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.1	"	"	"	"	"	"	
Benzene	ND	0.1	"	"	"	"	"	"	
Trichloroethene	ND	0.5	"	"	"	"	"	"	
Toluene	ND	1.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.5	"	"	"	"	"	"	
Tetrachloroethene	24	0.1	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.5	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	1.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.5	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*107 %*		*75-125*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*109 %*		*75-125*	"	"	"	"	
Surrogate: Toluene-d8		*101 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*88.4 %*		*75-125*	"	"	"	"	

MOBILE GEOCHEMISTRY

H&P

URS - Las Vegas	Project: UR032007-10	
811 Grier Dr.	Project Number: 26698724 / Maryland Square Al Phillips	Reported:
Las Vegas, NV 89119	Project Manager: Ms. Lisa Lowe	23-Mar-07

Volatile Organic Compounds by EPA Method 8260B

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SVB-13-10.5 (E703070-10) Vapor Sampled: 19-Mar-07 Received: 20-Mar-07									
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.1	EC72201	21-Mar-07	21-Mar-07	EPA 8260B	
Dichlorodifluoromethane	ND	0.5	"	"	"	"	"	"	
Vinyl chloride	ND	0.1	"	"	"	"	"	"	
Chloroethane	ND	0.5	"	"	"	"	"	"	
Trichlorofluoromethane	ND	0.5	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.5	"	"	"	"	"	"	
Methylene chloride	ND	0.5	"	"	"	"	"	"	
Freon 113	ND	0.5	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.5	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.5	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.5	"	"	"	"	"	"	
Chloroform	ND	0.1	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.5	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.1	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.1	"	"	"	"	"	"	
Benzene	ND	0.1	"	"	"	"	"	"	
Trichloroethene	1.7	0.5	"	"	"	"	"	"	
Toluene	ND	1.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.5	"	"	"	"	"	"	
Tetrachloroethene	37	0.1	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.5	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	1.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.5	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*118 %*		*75-125*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*118 %*		*75-125*	"	"	"	"	
Surrogate: Toluene-d8		*104 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*91.2 %*		*75-125*	"	"	"	"	

MOBILE GEOCHEMISTRY

H&P

URS - Las Vegas	Project: UR032007-10	
811 Grier Dr.	Project Number: 26698724 / Maryland Square Al Phillips	Reported:
Las Vegas, NV 89119	Project Manager: Ms. Lisa Lowe	23-Mar-07

Volatile Organic Compounds by EPA Method 8260B

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SVB-13-910.5 (E703070-11) Vapor	**Sampled: 19-Mar-07**	**Received: 20-Mar-07**							
1,1-Difluoroethane (LCC)	11	10	ug/l	0.1	EC72201	21-Mar-07	21-Mar-07	EPA 8260B	
Dichlorodifluoromethane	ND	0.5	"	"	"	"	"	"	
Vinyl chloride	ND	0.1	"	"	"	"	"	"	
Chloroethane	ND	0.5	"	"	"	"	"	"	
Trichlorofluoromethane	ND	0.5	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.5	"	"	"	"	"	"	
Methylene chloride	ND	0.5	"	"	"	"	"	"	
Freon 113	ND	0.5	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.5	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.5	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.5	"	"	"	"	"	"	
Chloroform	ND	0.1	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.5	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.1	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.1	"	"	"	"	"	"	
Benzene	ND	0.1	"	"	"	"	"	"	
Trichloroethene	1.9	0.5	"	"	"	"	"	"	
Toluene	ND	1.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.5	"	"	"	"	"	"	
Tetrachloroethene	45	0.1	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.5	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	1.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.5	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*107 %*		*75-125*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*107 %*		*75-125*	"	"	"	"	
Surrogate: Toluene-d8		*105 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*92.8 %*		*75-125*	"	"	"	"	

MOBILE GEOCHEMISTRY

H&P

URS - Las Vegas	Project: UR032007-10	
811 Grier Dr.	Project Number: 26698724 / Maryland Square Al Phillips	Reported:
Las Vegas, NV 89119	Project Manager: Ms. Lisa Lowe	23-Mar-07

Volatile Organic Compounds by EPA Method 8260B

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SVB-13-20 (E703070-12) Vapor Sampled: 19-Mar-07 Received: 20-Mar-07									
1,1-Difluoroethane (LCC)	690	10	ug/l	0.1	EC72201	21-Mar-07	21-Mar-07	EPA 8260B	
Dichlorodifluoromethane	ND	0.5	"	"	"	"	"	"	
Vinyl chloride	ND	0.1	"	"	"	"	"	"	
Chloroethane	ND	0.5	"	"	"	"	"	"	
Trichlorofluoromethane	ND	0.5	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.5	"	"	"	"	"	"	
Methylene chloride	ND	0.5	"	"	"	"	"	"	
Freon 113	ND	0.5	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.5	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.5	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.5	"	"	"	"	"	"	
Chloroform	ND	0.1	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.5	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.1	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.1	"	"	"	"	"	"	
Benzene	ND	0.1	"	"	"	"	"	"	
Trichloroethene	ND	0.5	"	"	"	"	"	"	
Toluene	ND	1.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.5	"	"	"	"	"	"	
Tetrachloroethene	35	0.1	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.5	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	1.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.5	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*111 %*		*75-125*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*115 %*		*75-125*	"	"	"	"	
Surrogate: Toluene-d8		*103 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*92.4 %*		*75-125*	"	"	"	"	

MOBILE GEOCHEMISTRY

H&P

URS - Las Vegas	Project: UR032007-10	
811 Grier Dr.	Project Number: 26698724 / Maryland Square Al Phillips	Reported:
Las Vegas, NV 89119	Project Manager: Ms. Lisa Lowe	23-Mar-07

Volatile Organic Compounds by EPA Method 8260B - Quality Control

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EC72201 - EPA 5030										
Blank (EC72201-BLK1)				Prepared & Analyzed: 21-Mar-07						
1,1-Difluoroethane (LCC)	ND	10	ug/l							
Dichlorodifluoromethane	ND	0.5	"							
Vinyl chloride	ND	0.1	"							
Chloroethane	ND	0.5	"							
Trichlorofluoromethane	ND	0.5	"							
1,1-Dichloroethene	ND	0.5	"							
Methylene chloride	ND	0.5	"							
Freon 113	ND	0.5	"							
trans-1,2-Dichloroethene	ND	0.5	"							
1,1-Dichloroethane	ND	0.5	"							
cis-1,2-Dichloroethene	ND	0.5	"							
Chloroform	ND	0.1	"							
1,1,1-Trichloroethane	ND	0.5	"							
Carbon tetrachloride	ND	0.1	"							
1,2-Dichloroethane	ND	0.1	"							
Benzene	ND	0.1	"							
Trichloroethene	ND	0.5	"							
Toluene	ND	1.0	"							
1,1,2-Trichloroethane	ND	0.5	"							
Tetrachloroethene	ND	0.1	"							
Ethylbenzene	ND	1.0	"							
1,1,1,2-Tetrachloroethane	ND	0.5	"							
m,p-Xylene	ND	1.0	"							
o-Xylene	ND	1.0	"							
1,1,2,2-Tetrachloroethane	ND	0.5	"							
Surrogate: Dibromofluoromethane	*2.69*		"	*2.50*		*108*	*75-125*			
Surrogate: 1,2-Dichloroethane-d4	*2.63*		"	*2.50*		*105*	*75-125*			
Surrogate: Toluene-d8	*2.48*		"	*2.50*		*99.2*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*2.48*		"	*2.50*		*99.2*	*75-125*			

MOBILE GEOCHEMISTRY

H&P

URS - Las Vegas	Project: UR032007-10	
811 Grier Dr.	Project Number: 26698724 / Maryland Square Al Phillips	Reported:
Las Vegas, NV 89119	Project Manager: Ms. Lisa Lowe	23-Mar-07

Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

MOBILE GEOCHEMISTRY

H&P

Chain of Custody Record

☑ 2470 Impala Dr., Carlsbad, CA 92010 • ph 760.804.9678 • fax 760.804.9159
☐ 3825 Industry Avenue, Lakewood, CA 90712 • ph 562.426.6991 • fax 562.426.6995

Date:
H&P Project # URO32007-10
Outside Lab:

Client: URS
Address: 811 Grier Dr
Las Vegas NV 89119
Email: Lisa_Lowe@urscorp.com Phone: 702-492-7923

Collector: Lisa Lowe / Holly Woodward Page: 1 of 2
Client Project # 26698724 Project Contact: L. Lowe
Location: Maryland Square At Phillips
Fax: 702-492-9149 Turn around time: 48 hr

EDF: Yes ☐ No ☐
Global ID:

Sample Receipt
Intact: ☒ Yes ☐ No
Seal Intact: ☐ Yes ☐ No ☒ N/A
Cold: ☐ Yes ☒ No
N/A (Received on Site)

Special Instructions: analysis within 48 hrs.

Request low detection level

*sample container labeled SVB-16-20.5 AL 3/20/07

Sample Name	Field Point Name	Purge Vol	Time	Date	Sample Type	Container Type	TPH ☐ gasoline ☐ diesel ☐ ext	418.1 TRPH	8021 for BTEX/MTBE	8260B: BTEX / Oxygenates	8260B: TPH gas	8260B: VOC's	8260B: DTSC/LARWQCB	8260B: Ketones	TO-15: Full List	TO-15: BTEX/MTBE	LCC (specify) 1,1-difluoroethane	Naphthalene ☐ 8260B ☐ TO-15	Methane	Fixed Gases ☐ CO_2 ☐ O_2 ☐ N_2			Total # of containers
Trip Blank	TRIP BLANK	400		3/19/07	gas	tedlar						X					X						1
SVB-16-5	SVB-16		0942	3/19/07								X					X						1
SVB-16-10	"		0935	"								X					X						1
* SVB-16-20.5	↓		0832									X					X						1
SVB-15-15	SVB-15		1000									X					X						1
SVB-15-20	↓		1022									X					X						1
SVB-14-10	SVB-14		1122									X					X						1
SVB-14-20	↓		1153	↓	↓	↓						X					X						1

Relinquished by: (Signature)	(company)	Received by: (Signature)	(company)	Date:	Time:
Holly Woodward	URS 3/19/07 1835	via FedEx	H&P	3/20/07	9:30 am
Relinquished by: (Signature)	(company)	Received by: (Signature)	(company)	Date	Time
Relinquished by: (Signature)	(company)	Received by: (Signature)	(company)	Date:	Time:

*Signature constitutes authorization to proceed with analysis and acceptance of condition on back.

Sample disposal instruction: ☒ Disposal @ $2.00 each ☐ Return to client ☐ Pickup

MOBILE GEOCHEMISTRY

H&P

Chain of Custody Record

☒ 2470 Impala Dr., Carlsbad, CA 92010 • ph 760.804.9678 • fax 760.804.9159
☐ 3825 Industry Avenue, Lakewood, CA 90712 • ph 562.426.6991 • fax 562.426.6995

Date: _____

H&P Project # UR032007-10

Outside Lab: _____

Client: URS

Address: 811 Grier Dr
Las Vegas, NV 89119

Email: Lisa_Lowe@urscorp.com Phone: 702-492-7923

Collector: L Lowe / Holly Woodward Page: 2 of 2

Client Project # 26698724 Project Contact: Lisa Lowe

Location: Maryland Square AI Phillips

Fax: 702-492-9149 Turn around time: 48hr

EDF: Yes ☐ No ☐

Global ID: _____

Sample Receipt
Intact: ☐ Yes ☐ No
Seal Intact: ☐ Yes ☐ No ☐ N/A
Cold: ☐ Yes ☐ No
N/A (Received on Site)

Special Instructions: Analysis within 48 hrs.
Request low detection level

Sample Name	Field Point Name	Purge Vol	Time	Date	Sample Type	Container Type	TPH ☐ gasoline ☐ diesel ☐ ext	418.1 TRPH	8021 for BTEX/MTBE	8260B: BTEX / Oxygenates	8260B: TPH gas	8260B: VOC's	8260B: DTSC/LARWQCB	8260B: Ketones	TO-15: Full List	TO-15: BTEX/MTBE	LCC (specify) 1,1-Difluoroethane	Naphthalene ☐ 8260B ☐ TO-15	Methane	Fixed Gases ☐ CO_2 ☐ O_2 ☐ N_2	Total # of containers
SVB-13 5'	SVB-13		1158	3/19/07	gas	tedlar						X					X				1
SVB-13 10.5'	↓		1209	↓	↓	↓						X					X				1
SVB-13 21.5'			1218									X					X				1
SVB-13 23'			1343									X					X				1

Relinquished by: (Signature)	(company)	Received by: (Signature)	(company)	Date	Time
Holly Woodward	URS 3/19/07 1635	via FedEx	H&P	3/20/07	9:30am
Relinquished by: (Signature)	(company)	Received by: (Signature)	(company)	Date	Time
Relinquished by: (Signature)	(company)	Received by: (Signature)	(company)	Date	Time

*Signature constitutes authorization to proceed with analysis and acceptance of condition on back.

Sample disposal instruction: ☒ Disposal @ $2.00 each ☐ Return to client ☐ Pickup

MOBILE GEOCHEMISTRY

H&P

23 March 2007

Ms. Lisa Lowe
URS - Las Vegas
811 Grier Dr.
Las Vegas, NV 89119
RE: UR032107-11

Enclosed are the results of analyses for samples received by the laboratory on 21-Mar-07 . If you have any questions concerning this report, please feel free to contact me.

Sincerely,

J Villarreal

Janis Villarreal
Laboratory Director

H&P Mobile Geochemistry operates under CA Environmental Lab Accreditation Program Numbers 1317, 1561, 1667, 1745, 1746, 2088, 2278, 2543, 2579 and 2595.

2470 Impala Drive, Carlsbad, California 92010 — 760.804.9678 — Fax 760.804.9159
3825 Industry Avenue, Lakewood, California 90712 — 562.426.6991 — Fax 562.426.6995
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MOBILE GEOCHEMISTRY

H&P

URS - Las Vegas	Project: UR032107-11	
811 Grier Dr.	Project Number: 26698724 / Maryland Square Al Phillips	Reported:
Las Vegas, NV 89119	Project Manager: Ms. Lisa Lowe	23-Mar-07

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SVB-12-5	E703074-01	Vapor	20-Mar-07	21-Mar-07
SVB-12-10	E703074-02	Vapor	20-Mar-07	21-Mar-07
SVB-11-10	E703074-03	Vapor	20-Mar-07	21-Mar-07
SVB-11-910	E703074-04	Vapor	20-Mar-07	21-Mar-07
SVB-11-15	E703074-05	Vapor	20-Mar-07	21-Mar-07

MOBILE GEOCHEMISTRY

H&P

URS - Las Vegas	Project: UR032107-11	
811 Grier Dr.	Project Number: 26698724 / Maryland Square Al Phillips	Reported:
Las Vegas, NV 89119	Project Manager: Ms. Lisa Lowe	23-Mar-07

Volatile Organic Compounds by EPA Method 8260B

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SVB-12-5 (E703074-01) Vapor Sampled: 20-Mar-07 Received: 21-Mar-07									
1,1-Difluoroethane (LCC)	210	10	ug/l	0.05	EC72202	22-Mar-07	22-Mar-07	EPA 8260B	E
Dichlorodifluoromethane	ND	0.5	"	"	"	"	"	"	
Vinyl chloride	ND	0.1	"	"	"	"	"	"	
Chloroethane	ND	0.5	"	"	"	"	"	"	
Trichlorofluoromethane	ND	0.5	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.5	"	"	"	"	"	"	
Methylene chloride	ND	0.5	"	"	"	"	"	"	
Freon 113	ND	0.5	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.5	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.5	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.5	"	"	"	"	"	"	
Chloroform	ND	0.1	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.5	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.1	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.1	"	"	"	"	"	"	
Benzene	ND	0.1	"	"	"	"	"	"	
Trichloroethene	ND	0.5	"	"	"	"	"	"	
Toluene	ND	1.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.5	"	"	"	"	"	"	
Tetrachloroethene	ND	0.1	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.5	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	1.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.5	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*95.6 %*		*75-125*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*94.0 %*		*75-125*	"	"	"	"	
Surrogate: Toluene-d8		*96.0 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*95.2 %*		*75-125*	"	"	"	"	

MOBILE GEOCHEMISTRY
H&P

URS - Las Vegas	Project: UR032107-11	
811 Grier Dr.	Project Number: 26698724 / Maryland Square Al Phillips	Reported:
Las Vegas, NV 89119	Project Manager: Ms. Lisa Lowe	23-Mar-07

Volatile Organic Compounds by EPA Method 8260B

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SVB-12-10 (E703074-02) Vapor Sampled: 20-Mar-07 Received: 21-Mar-07									
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.05	EC72202	22-Mar-07	22-Mar-07	EPA 8260B	
Dichlorodifluoromethane	ND	0.5	"	"	"	"	"	"	
Vinyl chloride	ND	0.1	"	"	"	"	"	"	
Chloroethane	ND	0.5	"	"	"	"	"	"	
Trichlorofluoromethane	ND	0.5	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.5	"	"	"	"	"	"	
Methylene chloride	ND	0.5	"	"	"	"	"	"	
Freon 113	ND	0.5	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.5	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.5	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.5	"	"	"	"	"	"	
Chloroform	ND	0.1	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.5	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.1	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.1	"	"	"	"	"	"	
Benzene	ND	0.1	"	"	"	"	"	"	
Trichloroethene	ND	0.5	"	"	"	"	"	"	
Toluene	ND	1.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.5	"	"	"	"	"	"	
Tetrachloroethene	3.0	0.1	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.5	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	1.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.5	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*94.0 %*		*75-125*		"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*97.2 %*		*75-125*		"	"	"	
Surrogate: Toluene-d8		*94.4 %*		*75-125*		"	"	"	
Surrogate: 4-Bromofluorobenzene		*95.2 %*		*75-125*		"	"	"	

MOBILE GEOCHEMISTRY

H&P

URS - Las Vegas	Project: UR032107-11	
811 Grier Dr.	Project Number: 26698724 / Maryland Square Al Phillips	Reported:
Las Vegas, NV 89119	Project Manager: Ms. Lisa Lowe	23-Mar-07

Volatile Organic Compounds by EPA Method 8260B

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SVB-11-10 (E703074-03) Vapor	**Sampled: 20-Mar-07**	**Received: 21-Mar-07**							
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.05	EC72202	22-Mar-07	22-Mar-07	EPA 8260B	
Dichlorodifluoromethane	ND	0.5	"	"	"	"	"	"	
Vinyl chloride	ND	0.1	"	"	"	"	"	"	
Chloroethane	ND	0.5	"	"	"	"	"	"	
Trichlorofluoromethane	ND	0.5	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.5	"	"	"	"	"	"	
Methylene chloride	ND	0.5	"	"	"	"	"	"	
Freon 113	ND	0.5	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.5	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.5	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.5	"	"	"	"	"	"	
Chloroform	ND	0.1	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.5	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.1	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.1	"	"	"	"	"	"	
Benzene	0.1	0.1	"	"	"	"	"	"	
Trichloroethene	ND	0.5	"	"	"	"	"	"	
Toluene	ND	1.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.5	"	"	"	"	"	"	
Tetrachloroethene	0.5	0.1	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.5	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	1.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.5	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*94.8 %*		*75-125*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*99.2 %*		*75-125*	"	"	"	"	
Surrogate: Toluene-d8		*94.8 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*97.6 %*		*75-125*	"	"	"	"	

MOBILE GEOCHEMISTRY
H&P

URS - Las Vegas	Project: UR032107-11	
811 Grier Dr.	Project Number: 26698724 / Maryland Square Al Phillips	Reported:
Las Vegas, NV 89119	Project Manager: Ms. Lisa Lowe	23-Mar-07

Volatile Organic Compounds by EPA Method 8260B

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SVB-11-910 (E703074-04) Vapor Sampled: 20-Mar-07 Received: 21-Mar-07									
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.05	EC72202	22-Mar-07	22-Mar-07	EPA 8260B	
Dichlorodifluoromethane	ND	0.5	"	"	"	"	"	"	
Vinyl chloride	ND	0.1	"	"	"	"	"	"	
Chloroethane	ND	0.5	"	"	"	"	"	"	
Trichlorofluoromethane	ND	0.5	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.5	"	"	"	"	"	"	
Methylene chloride	ND	0.5	"	"	"	"	"	"	
Freon 113	ND	0.5	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.5	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.5	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.5	"	"	"	"	"	"	
Chloroform	ND	0.1	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.5	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.1	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.1	"	"	"	"	"	"	
Benzene	0.1	0.1	"	"	"	"	"	"	
Trichloroethene	ND	0.5	"	"	"	"	"	"	
Toluene	ND	1.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.5	"	"	"	"	"	"	
Tetrachloroethene	0.4	0.1	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.5	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	1.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.5	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*96.8 %*		*75-125*		"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*99.2 %*		*75-125*		"	"	"	
Surrogate: Toluene-d8		*94.4 %*		*75-125*		"	"	"	
Surrogate: 4-Bromofluorobenzene		*93.2 %*		*75-125*		"	"	"	

MOBILE GEOCHEMISTRY

H&P

URS - Las Vegas	Project: UR032107-11	
811 Grier Dr.	Project Number: 26698724 / Maryland Square Al Phillips	Reported:
Las Vegas, NV 89119	Project Manager: Ms. Lisa Lowe	23-Mar-07

Volatile Organic Compounds by EPA Method 8260B

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SVB-11-15 (E703074-05) Vapor Sampled: 20-Mar-07 Received: 21-Mar-07									
1,1-Difluoroethane (LCC)	ND	10	ug/l	0.05	EC72202	22-Mar-07	22-Mar-07	EPA 8260B	
Dichlorodifluoromethane	ND	0.5	"	"	"	"	"	"	
Vinyl chloride	ND	0.1	"	"	"	"	"	"	
Chloroethane	ND	0.5	"	"	"	"	"	"	
Trichlorofluoromethane	ND	0.5	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.5	"	"	"	"	"	"	
Methylene chloride	ND	0.5	"	"	"	"	"	"	
Freon 113	ND	0.5	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.5	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.5	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.5	"	"	"	"	"	"	
Chloroform	ND	0.1	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.5	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.1	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.1	"	"	"	"	"	"	
Benzene	ND	0.1	"	"	"	"	"	"	
Trichloroethene	ND	0.5	"	"	"	"	"	"	
Toluene	ND	1.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.5	"	"	"	"	"	"	
Tetrachloroethene	ND	0.1	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.5	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	1.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.5	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*94.8 %*		*75-125*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*98.8 %*		*75-125*	"	"	"	"	
Surrogate: Toluene-d8		*93.6 %*		*75-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*96.8 %*		*75-125*	"	"	"	"	

MOBILE GEOCHEMISTRY
H&P

URS - Las Vegas	Project: UR032107-11	
811 Grier Dr.	Project Number: 26698724 / Maryland Square Al Phillips	Reported:
Las Vegas, NV 89119	Project Manager: Ms. Lisa Lowe	23-Mar-07

Volatile Organic Compounds by EPA Method 8260B - Quality Control
H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EC72202 - EPA 5030										
Blank (EC72202-BLK1)				Prepared & Analyzed: 22-Mar-07						
1,1-Difluoroethane (LCC)	ND	10	ug/l							
Dichlorodifluoromethane	ND	0.5	"							
Vinyl chloride	ND	0.1	"							
Chloroethane	ND	0.5	"							
Trichlorofluoromethane	ND	0.5	"							
1,1-Dichloroethene	ND	0.5	"							
Methylene chloride	ND	0.5	"							
Freon 113	ND	0.5	"							
trans-1,2-Dichloroethene	ND	0.5	"							
1,1-Dichloroethane	ND	0.5	"							
cis-1,2-Dichloroethene	ND	0.5	"							
Chloroform	ND	0.1	"							
1,1,1-Trichloroethane	ND	0.5	"							
Carbon tetrachloride	ND	0.1	"							
1,2-Dichloroethane	ND	0.1	"							
Benzene	ND	0.1	"							
Trichloroethene	ND	0.5	"							
Toluene	ND	1.0	"							
1,1,2-Trichloroethane	ND	0.5	"							
Tetrachloroethene	ND	0.1	"							
Ethylbenzene	ND	1.0	"							
1,1,1,2-Tetrachloroethane	ND	0.5	"							
m,p-Xylene	ND	1.0	"							
o-Xylene	ND	1.0	"							
1,1,2,2-Tetrachloroethane	ND	0.5	"							
Surrogate: Dibromofluoromethane	*2.38*		"	*2.50*		*95.2*	*75-125*			
Surrogate: 1,2-Dichloroethane-d4	*2.42*		"	*2.50*		*96.8*	*75-125*			
Surrogate: Toluene-d8	*2.40*		"	*2.50*		*96.0*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*2.39*		"	*2.50*		*95.6*	*75-125*			

MOBILE GEOCHEMISTRY
H&P

URS - Las Vegas	Project: UR032107-11	
811 Grier Dr.	Project Number: 26698724 / Maryland Square Al Phillips	Reported:
Las Vegas, NV 89119	Project Manager: Ms. Lisa Lowe	23-Mar-07

Notes and Definitions

E	The concentration indicated for this analyte is an estimated value above the calibration range of the instrument. This value is considered an estimate (CLP E-flag).
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

MOBILE GEOCHEMISTRY

H&P

Chain of Custody Record

2470 Impala Dr., Carlsbad, CA 92010 • ph 760.804.9678 • fax 760.804.9159
3825 Industry Avenue, Lakewood, CA 90712 • ph 562.426.6991 • fax 562.426.6995

Date: _____

H&P Project # 1R032107-11

Outside Lab: _____

Client: URS

Address: 811 Grier Dr
Las Vegas, NV 89119

Email: Lisa_Lowe@urs.corp.com Phone: 702-492-7923

Collector: L Lowe, H Woodward Page: 1 of _____

Client Project # 26498724 Project Contact: Lisa Lowe

Location: Maryland Square AI Phillips

Fax: 702-492-9149 Turn around time: 48hr

EDF: Yes ☐ No ☐

Global ID: _____

Sample Receipt
Intact: ☐ Yes ☐ No
Seal Intact: ☐ Yes ☐ No ☐ N/A
Cold: ☐ Yes ☐ No
N/A (Received on Site)

Special Instructions:
Analysis within 48hours
Request Low detection level

Sample Name	Field Point Name	Purge Vol	Time	Date	Sample Type	Container Type	TPH ☐ gasoline ☐ diesel ☐ ext	418.1 TRPH	8021 for BTEX/MTBE	8260B: BTEX / Oxygenates	8260B: TPH gas	8260B: VOC's	8260B: DTSC/LARWQCB	8260B: Ketones	TO-15: Full List	TO-15: BTEX/MTBE	LCC (specify) 1,1-Difluoroethane	Naphthalene ☐ 8260B ☐ TO-15	Methane	Fixed Gases ☐ CO_2 ☐ O_2 ☐ N_2				Total # of containers
SVB-12-5	SVB-12	400	0723	3/20/07	gas	tedlar						X					X							1
SVB-12-10	↓		0746	↓	↓	↓						X					X							1
SVB-11-10	SVB-11		0905									X					X							1
SVB-11-910	↓		0905									X					X							1
SVB-11-15	↓		0926	↓	↓	↓						X					X							1

Relinquished by: (Signature) Holly Woodward	(company) URS	Received by: (Signature) [signature] via FedEx	(company) H&P	Date: 3/21/07	Time: 12:50 pm
Relinquished by: (Signature)	(company)	Received by: (Signature)	(company)	Date:	Time:
Relinquished by: (Signature)	(company)	Received by: (Signature)	(company)	Date:	Time:

*Signature constitutes authorization to proceed with analysis and acceptance of condition on back.

Sample disposal instruction: ☐ Disposal @ $2.00 each ☐ Return to client ☐ Pickup